2005

Development and validation of child routines questionnaire: preschool

Molly Murphy Wittig
Louisiana State University and Agricultural and Mechanical College, mmurph1@lsu.edu

DEVELOPMENT AND VALIDATION OF
CHILD ROUTINES QUESTIONNAIRE: PRESCHOOL

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
Requirements for the degree of
Doctor of Philosophy

in

The Department of Psychology

by
Molly Murphy Wittig
B.A., Louisiana State University, 1997
M.A., Louisiana State University, 2001
December 2005

Table of Contents

List of Tables

Abstract

Experts emphasize routines as a paramount practice in successful child rearing (Fiese, 2002). Only recently, however, has empirical evidence begun to corroborate this theory. While many researchers and clinicians have documented the use of daily child routines in their parenting packages and treatment studies, none has measured the effects of child routines directly. The emergence of The Child Routines Questionnaire offered ample evidence of the importance of child routines in school-age children. Significant findings link a lack of routines to child behavior problems, poor parenting practices, and parental psychopathology (Sytsma et al., 2001; Sytsma-Jordan, Kelley, & Henderson, 2002; Jordan, 2003). These data have offered insightful correlation between routines and overall child adjustment, and parental well-being.

The present study aimed to contribute to this literature by extending the CRQ to children ages one to five years through development and validation of the Child Routines Questionnaire: Preschool. An initial item pool yielded 62 items categorically grouped for expert review. After reducing the item pool to 42 items, the initial version of the scale was administered to a moderately large heterogeneous sample of mothers (n = 337). After further item elimination, a final scale of 35 items was administered to a new diverse sample of mothers (n = 175), as well as fathers (n = 51), to explore validity and additional reliability.

The CRQ: P established good internal consistency, adequate test-retest reliability, and good inter-rater reliability, as well as moderate evidence of concurrent validity. As expected, the CRQ: P demonstrated a positive relationship with measures of solid family routines and positive parenting practices. Conversely, results indicated an inverse

relationship between daily child routines and child behavior problems, poor child adaptability, parental stress, parent-child dysfunction, and maternal depression.

The current study offered preliminary psychometric properties of the CRQ: P. Additional data are needed to further evaluate evidence of validity and reliability of the scale. The CRQ: P presents as a promising assessment tool to contribute to our general understanding of child routines in early development for both researchers and clinicians alike.

Introduction

Experts in child development have long emphasized the importance of routines and parental consistency in fostering adaptive child behavior and family relationships (Fiese, 2002). The presence of family routines has been associated with increased child cooperation, social competence, and compliance (Keltner, 1990). Family cohesion and routines also may serve as a protective buffer against environmental stressors (Kliewer & Kung, 1998). Despite the importance of family routines, until recently, only expert opinion and sparse empirical literature are all that exist in support of the role of routines in promoting compliance and adjustment in children.

The importance of family routines is consistent with behavioral theory of child and parenting behavior. Routines can be described as a fixed sequence of typical daily events that provide predictability in the environment and may aid in the establishment of appropriate behavior (Milan, Mitchell, Berger, & Pierson, 1981; Sytsma, Kelley, & Wymer, 2001). Structure and routines in the environment are commonly integrated into behavioral parenting interventions and have been effectively employed in numerous studies (Adams, & Rickert, 1989; Drabman, & Creedon, 1979; Milan, Mitchell, Berger & Pierson, 1981; Sanders, Bor, & Dadds, 1984).

Investigating the role of routines in early childhood development may contribute to our understanding of long-term child adjustment. Developmental experts suggest that the foundation for social competence and child adaptability is established within the first few years (Keltner, 1990). Furthermore, routine and structure may promote the ability to regulate emotions and control impulses (Kliewer & Kung, 1998; Landy, 2002). Routines

1

are frequently described as a necessary component of positive parenting practices and contribute to better parent-child relationship overall.

Only a few assessment tools exist to address familial routines, however until recently, none specifically evaluated daily child routines. The Child Routines Questionnaire (CRQ; formerly the Child Routines Inventory [CRI]; Sytsma, Kelley, & Wymer, 2001) was developed in an attempt to measure child routines in the home. The CRQ is an empirically-based parent report scale for school-age children that has demonstrated adequate psychometric properties. In addition, the CRQ has demonstrated moderate correlations with family routines and inverse correlations with child behavior problems (Sytsma et al., 2001). More recently, further evidence has emerged in support of the relationship between child routines as measured by the CRQ and parent and child outcomes (Jordan, 2003). To date, the scale only examines routines of school-age children. A comparable measure to assess routines in preschool age children has yet to be developed. The current study will address this void in the literature.

The following review provides a discussion of child routines in the popular press. Next, the behavioral theory relating to the importance of routines and existing empirical literature is reviewed. Existing assessment tools measuring routines are discussed followed by an examination of early development and childhood routines. Finally, the rationale for the present study is described.

Child Routines in the Popular Press

Routines have been defined in the popular press as activities that occur in the "same order and at the same time everyday" or a predictable sequence of events that are followed daily (Cassidy, 1992; Curtis, 2000). Routines can be defined as contiguous

behavior repeated over time (Fiese et al., 2002). Typical child routines often center on dressing, mealtime, homework, clean-up, and bedtime (Eisenberg, Murkoff, & Hathaway, 1996; Nelson, Erwin, & Duffy, 1998). Routines often involve instructive communication and require an allotted time commitment to complete the tasks. Caregivers are instrumental in prompting the child by giving an instruction to begin a sequence of behaviors until the child is able to begin and complete the routine independently. More specifically, a child's morning routine might consist of a standard sequence including washing face, brushing teeth, dressing, making bed, and eating breakfast before leaving for school.

The popular parenting literature emphasizes routines and structure as a means for parents to establish predictability and stability in their children's lives especially in the early years of development (Handler, 1999). For instance, routines may provide children with a sense of security and control over their environment and offer a chance to "build a bridge from home to school, from day to night" and prepare the child for separation from the parent (Kase, 1999). Routine and limit setting establish boundaries for the child that may aid in the development of self-regulation. Consequently, as children mature and begin to explore their environment independently of the caregiver, they may encounter stressors such as environmental change or transition. Those children from consistent, structured homes are more likely to exhibit self-regulation and prosocial behaviors in the face of adverse experiences (Landy, 2002). While these recommendations are well suited to the theoretical concepts of parenting and child development, the study of routines specific to children remains relatively undeveloped in the literature.

Behavioral Theory of Child Routines

Conceptually, routines fit well within a behavioral analytic paradigm. Routines offer predictability within the environment and are maintained by consequences upon completion. Routines may function under several mechanisms (Sytsma et al., 2001). Routines provide predictability of stimulus cues in the home, increase the discriminability of demands, and aid in the development of rule-governed behavior and generalized compliance (Plaud & Plaud, 1998; Sytsma et al., 2001).

Routines provide predictability of stimulus cues in the home (Sytsma et al., 2001). Researchers have suggested that children seek out predictability in the home environment even in the form of aversive and inappropriate behaviors (Wahler & Dumas, 1986). There is some empirical evidence that oppositional behavior serves to establish predictability and maintenance of aversive maternal responses. For instance, children from chaotic and unpredictable homes have been found to exhibit increased oppositionality and experience more negative maternal responses. Wahler and Dumas (1986) found that single episodes of aversive child behavior were correlated with indiscriminate maternal responses. Yet, multiple episodes of aversive child behavior correlated with consistent aversive maternal attention.

These findings are consistent with Patterson's (1982) coercive family process model. Patterson (1982) suggests that coercive behavior between family members is shaped and maintained by the immediate social exchange provided. Parents with little control often resort to coercion (aversive physical or verbal responses) to occasion compliance from their child. Child compliance, in turn, reinforces the aversive parent behavior. Alternately, the child's inappropriate behavior is shaped and negatively

4

reinforced by coercive negative attention from the parent (Patterson, 1982; Schrepferman & Snyder, 2002). Thus, child externalizing behavior problems are believed to be related to negative, aggressive, and coercive parent-child interaction. Development of behavior problems then impedes a child's ability to learn appropriate social and adaptive skills (Patterson, 1982; Sytsma-Jordan, 2003).

Alternately, Patterson's (1982) model implies that predictability provided by positive parent-child interactions is related to the development of child prosocial behaviors. Positive parenting practices, such as providing structure, appropriate feedback, and consistency are predictive of both child compliance and appropriate parent responses in return. This suggests that a history of routines sets the occasion for compliance to and discriminability of parental instructions.

As such, routines may serve to increase the discriminability of demands (Urcuioli, 2005). Routines typically consist of a set of behaviors implied by one instruction, such as "go to bed". Compliance to the instruction "go to bed", for example, may require that the child brushes teeth, puts on pajamas, and physically gets into bed. The parent instruction serves as a discriminative stimuli (S^D) for a group of behaviors in the particular routine. Increased discriminability of demands increases reinforcement and child compliance (Urcuioli, 2005). As in Patterson's model, the parents are also reinforced by child compliance.

Furthermore, routines can be considered within the context of rule-governed behavior (Sytsma et al., 2001). Skinner (1969) emphasized the importance of "rules" or verbal parent instruction as a method of establishing verbal discriminative stimuli for child compliance. Rule-governed behavior is established through the use of contingency-

specifying-stimuli or verbal statements specifying all or part of an actual contingency of reinforcement (Schlinger & Blakely, 1987; Skinner, 1969). The use of verbal statements provides an efficient means of learning behaviors that access positive contingencies, avoid negative contingencies, and generalize to novel situations (Plaud & Newberry, 1996; Skinner, 1967). Routines may be preliminary in the establishment of rule-governed behavior by providing the child with a history of experience with consistent, predictable set of verbal instructions.

This concept has been the premise for popular parent training programs where parents are taught general contingency management to employ within the home (Barkley, 1997; Hembree-Kigin & McNeil, 1995; McMahon & Forehand, 2003; Pelham, Wheeler, & Chronis, 1998). These include: giving effective instructions, positive reinforcement, active ignoring, response cost, time out, and token economies. The establishment of routines is a component that is often embedded within or is a product of these parent training interventions. Through systematic application of these techniques, daily routines may be established under certain stimulus conditions and the parental command elicits child compliance. As children learn to respond to predictable, daily environmental cues, parents are less likely to experience child noncompliance and tantruming, parent-child conflict, and maternal stress. Daily routines may be a necessary component of contingency management procedures in establishing rule-governed behavior and compliance though only sparse evidence exists to support this theory (Sanders & Dadds, 1982).

Many studies have successfully employed routines as a single intervention or as a component of a behavioral treatment "package". Researchers targeted problems during bedtime and morning. For instance, Milan et al. (1981) used chaining or linking a series of related behaviors together through the use of reinforcers to effectively reduce bedtime tantruming and eventually fade the beginning of the routine backward to the desired bedtime for three children ages 2, 4, and 15. The parents were instructed to praise after each component of the routine was completed thus prompting the child's participation in the next step of the routine. Employing routines proved to have fewer side effects and more efficient success than using extinction alone for reducing nighttime behavior problems. In fact, the children experienced more social reinforcement from their parents as a result of implementing bedtime routines.

In a similar study, Adams and Rickert (1989) compared positive routines and graduated extinction to increase cooperative bedtime behavior. Routines involved gradually adjusting the child's natural sleep schedule to a desired scheduled time. Graduated extinction consisted of actively ignoring tantruming for longer periods of time. Though both methods were effective in reducing tantrums, no side effects were found with systematic routine as compared with the use of graduated extinction. Also, parents reported improved marital satisfaction as a result of establishing positive bedtime routines.

Several other studies have included routines in a treatment package to reduce bedtime problems in preschoolers. Sanders, Bor, and Dadds (1984) investigated the use of stimulus control with contingency management for 2-to-5-year-olds. The treatment

program involved sequentially teaching parents skills to successfully decrease night wakings and disruptive behavior. Parents were taught to provide consistent nighttime routines, rewards, planned ignoring, and response cost. The nighttime routine consisted of an instruction to begin a quiet activity 30 minutes prior to bedtime such as reading, a cue to complete activity 5 minutes before bedtime, and finally the child was told to go bed and story was read by parent if child complied. Parents used active ignoring for any protests and time out if the child left the bed. The authors noted that stimulus control procedures such as a regular bedtime and scheduled quiet activities were related to earlier sleep onset. Another study successfully established regular bedtime and reduced frequent night wakings in children ages 1 to 4 using a parent managed behavioral intervention including consistent bedtime routines, praise of appropriate behavior, and ignoring disruptive behavior (Seymour, 1987).

Mornings are also a common trouble area for many parents. A succession of studies included the use of "Beat the Buzzer" with different subjects and in a variety of settings. "Beat the Buzzer" is a contingency management procedure designed to improve the completion of tasks and/or routines and decrease dawdling, noncompliance, tantrums, and parent-child conflict by manipulating both antecedent and consequence events (Drabman & Creedon, 1979). A buzzer is set before beginning the routine and the child is expected to complete all stated tasks before the buzzer goes off for a reward.

Wolfe, Kelley, & Drabman (1981) used this intervention to effectively regulate a morning routine for two children ages 4 and 9 and to decrease mother-child conflict with a parent at risk for child abuse. The children chose a reward before the timer was set for 45 minutes and were expected to brush teeth, get dressed, and finish breakfast before the

timer sounded in any order to receive the reward. Maternal attention and positive

interactions increased. Rewards were reduced and changes were maintained at a one and

two month follow-up. In a similar study, McGrath, Dorsett, Calhoun, & Drabman (1987)

reduced morning dawdling, conflict, and noncompliance through the implementation of

"Beat the Buzzer" with corresponding improvement in parent-child interactions. More

recently, Adams and Drabman (1995) investigated the use of the intervention with a child

with developmental disabilities and multiple handicaps such as cerebral palsy,

psychomotor seizures, and speech delays. Problematic morning behaviors and

inappropriate maternal attention were significantly reduced. Treatment effects were

maintained at a 3-month follow up.

Clearly, routines have been a component of many effective behavioral

interventions. Several behavioral researchers have incorporated routines into treatment

packages, yet have not studied the impact of routines on family and child development or

isolated necessary components to establish effective routines (Edwards & Christophersen,

1994).   In addition, empirical evidence to support the relationship between child routines

and behavior problems, child adjustment, and parenting factors remains poorly

understood (Sytsma et al., 2001). Although some assessment tools exist for the purpose

of measuring family routines, until recently none have been developed to specifically

address the impact of routines on individual children.

Assessment of Routines

The relevance of routines to family functioning typically has been investigated

from a sociological or an anthropological perspective. Family routines have been

recognized as a strong predictor of promoting mental and physical health for both parents

and children (Fiese et al., 2002). Routines and rituals are viewed as a complex part of socialization, civilization, and child development. Despite 50 years of theoretical interest with family rituals and routines Fiese and Kline (1993) and Jenson, James, Boyce, and Hartnett have only recently attempted to measure and empirically evaluate family routines. Despite these recent developments, there remains a paucity of data related to measurement tools, particularly those specific to young children.

     <u>Family Routines Inventory (FRI; Jenson et al., 1983).</u> Jenson et al. (1983) developed the FRI to explore routines present in the daily life of a family with at least one child between infancy and 16 years of age (Boyce, Jensen, James, & Peacock, 1983). Other variables that the FRI assesses are family cohesiveness, solidarity, order, and overall satisfaction with family life. Items are rated on a 4-point Likert type scale for a Frequency subscale and a 3-point Likert type scale for an Importance subscale. The FRI has demonstrated adequate reliability and initial evidence of validity (Jensen, et al., 1983).

     The FRI has been used in a variety of studies evaluating environmental stability, maternal functioning, and child adaptability and health. Overall, families with frequent family routines and cohesion reported good child health, social competence in low income minority preschoolers, and strong child coping and resiliency (Boyce et al., 1977; Keltner, 1990; Baez, 2000). In addition, the presence of family routines as measured by the FRI was negatively related to maternal depression and positively related to child self-esteem and mother-child relationship quality (Brody and Flor, 1997; Manne, Lesanics, Meyers, & Wollner, 1995).

Though the FRI focuses on routines, the measure has several limitations. The FRI only surveys family routines, not individual child routines. Common childhood routines such as naptime or hygiene are not included on the scale. The FRI has not been directly evaluated with measures of child functioning and appropriate norms for minorities are still lacking (Sytsma et al., 2001). Finally, a few items in the scale do not pertain to single parent households. The FRI aids in the assessment of family cohesion and predictability, but fails to adequately evaluate individual child functioning or behaviors.

Family Rituals Questionnaire (FRQ; Fiese & Kline, 1993). The FRQ was developed to assess family rituals and routines within various dimensions and settings. According to Fiese and Kline (1993), routines differ from rituals in that they are continuous and repeated over time, whereas rituals involve social interactions often tied to symbolic meaning such as religious celebrations or ceremonies (Bennett, Wolin & McAvity, 1988; Mead, 1973; Moore & Merhoff, 1977). The FRQ yields two scores: dimensions and settings. There are seven settings of family ritual examined such as dinnertime, weekends, vacations, annual celebrations, special celebrations, religious holidays, and cultural and ethnic traditions. The dimensions measured include: occurrence, roles, routine, attendance, affect, symbolic significance, continuation, and deliberateness.

The FRQ has demonstrated good psychometric properties with adequate internal consistency and test-retest reliability. Good construct reliability and interrater agreement were also established. The authors also found evidence of positive correlation between role assignment and anxiety, and family rituals and self-esteem.

The FRQ provides a unique manner of investigating family routinization and interaction; however, it does possess several limitations. First, the FRQ does not provide a clear picture of chaotic and stressful environments, which is necessary to understand family organization and complexities (Fiese and Kline, 1993). Second, similar to the FRI, the focus is on the overall family dynamic and not the individual child. Finally, the FRQ does not measure child and parent behavior that may occur during routines or lack thereof. In order to address limitations of existing measures of routines, the Child Routines Questionnaire was developed.

Childhood Routines Inventory (CRI: Evans, et al, 1997). The CRI is a 19-item measure of ritualistic, repetitive, and compulsive-like behavior in children ages 2 to 8 years. The CRI demonstrated adequate internal consistency and a stable 2-factor structure of "Just Right" and Repetitive Behaviors". The CRI was created in an attempt to identify children who are exhibiting rigid or ritualistic behaviors indicative of obsessive-compulsive disorder or pervasive developmental disorder. The focus of the CRI is not to assess the daily routines of normally developing young children.

Child Routines Questionnaire (CRQ; Sytsma et al., 2001). The CRQ (Sytsma et al., 2001) is a 36-item parent report questionnaire to assess child routines in daily living. The scale consists of four subscales measuring Daily Living Routines, Household Responsibilities, Discipline Routines, and Homework Routines. In addition, several low frequency items from the initial development study that were rarely endorsed as occurring 'often' or 'nearly always' are included to measure social desirability and identify respondents with a tendency to present their children's behavior as unrealistically

favorable (Gerard, 1994). Routines are rated on a 5-point likert scale, with values ranging from zero (almost never) to four (nearly always).

The CRQ has demonstrated excellent internal consistency, with coefficient alpha of .90 as well as test-retest reliability of .86. A modest negative relationship with child behavior problems (r= -.35) and a positive relationship with family routines (r=.54) was reported in initial scale development. Evidence of discriminative validity of the CRQ between children referred for ADHD and pediatric controls has been reported in the preliminary findings of another study (Sytsma, Henderson, & Kelley, 2002). Also, inverse relations between child routines and parental stress (r=-.57) and maternal depression (r=-.29) have been reported (Sytsma, Henderson, & Kelley, 2002).

Recently, further evidence of reliability and validity of the CRQ has emerged beyond its initial phases of development (Jordan, 2003). Internal consistency has been comparable to subsequent studies of the CRQ. Evidence of convergent validity remained strong. Bivariate correlations between the CRQ Total score and composite scores of the Parent Behavior Inventory (PBI) and Alabama Parenting Questionnaire (APQ) provided further support of the relationship between child routines, child behavior problems, and parenting practices (Jordan, 2003). Lack of child routines remained a significant predictor of externalizing behavior problems. In addition, evidence of positive parenting behavior was found to promote child routines (Sytsma-Jordan, 2003). Conversely, negative parenting practices were found to counteract child routines thereby moderating child behavior problems. This is consistent with Patterson's Coercive Family Process Model, which suggests that routine and consistency are predictive of child behavior

(Patterson, 1982).   According to this model, children of coercive parents who use

unpredictable, aggressive methods of child management may develop behavior problems.

Notably, only weak evidence of divergent validity was found. Contrary to

expectations, results indicated a moderately strong positive relationship between the CRQ

and children's social and adaptive competence as measured by the Behavior Assessment

System for Children (BASC). The CRQ also showed a moderately strong negative

relationship with scales from the BASC measuring attention and internalizing problems.

Although these findings were inconsistent with the author's expectations, there has been

prior evidence of a correlation between family routines and cognitive adjustment and

internalizing symptoms (Keltner, 1990; Kliewer & Kung, 1998; Markson & Fiese, 2000).

One such study, found that higher levels of family cohesion and routines were related to

better family adaptability, fewer daily hassles, and decreased internalizing symptoms

(Kliewer and Kung, 1998).

Interestingly, child routines were not significantly related to SES as noted in prior

studies (Sytsma-Jordan, 2003). Also, maternal distress and single parenthood were not

found to be significant when parenting practices were taken into account. Parenting

practices accounted for more variance in routines than maternal distress and demographic

variables. There was also evidence that routines may be a mediating influence between

maternal distress and child behavior (Sytsma-Jordan, 2003). This is unexpected,

considering parenting demographics and mental adjustment have consistently

demonstrated significant impact on parent-child interactions and child behavior

(Cummings & Davies, 1994; Dadds, 1987; Wahler & Dumas, 1987).   Yet, low SES

remained significantly correlated with maternal distress and negative parenting practices,

particularly, poor monitoring and supervision, which are in concordance with the literature (Sytsma-Jordan, 2003).

Given the extensive literature concerning the impact of maternal variables and SES, the recent findings of Sytsma-Jordan (2003) are quizzical. Yet, the implications are very promising since they suggest that routines may be a mediating influence between maternal distress and child behavior problems (Sytsma-Jordan, 2003). These findings imply encouraging treatment outcome such that if parents can implement positive parenting techniques despite economic or insular setbacks, parents and children can experience better adaptability and fewer child behavior problems (Brenner & Fox, 1998).

Current limitations of the CRQ highlight the need for further validation. To date, only preliminary evidence of child routines as a predictor of positive child and parent outcomes exists. Further investigation of the relationships between parenting factors, parenting behaviors, and child routines and behavior problems should be conducted (Sytsma & Kelley, 2002). Furthermore, the CRQ is designated for school-age children yet experts claim there are critical benefits of routines in children age five and younger. Since early development bears such importance on long-term functioning, it may be beneficial to extend the scale to younger children to explore the routines of preschoolers and the impact on child and family functioning.

Early Development and Routines

Many researchers agree that the first few years of development are invaluable to child adjustment (Markson & Fiese, 2000). As children develop, consistency and structure may support child adjustment and acceptance of unfamiliar environments (Keltner, 1990). Toddlers and preschoolers often are recognized as having more

difficulty with transition and change than older children (Poehlmann & Fiese, 1994); as they are just beginning to learn to regulate their own behavior and demonstrate some level of independence. Consistency may help preschoolers manage environmental demands with confidence. Although some parents may fear that too much structure may lead to increased rigidity, psychologists emphasize that establishing routines early on may actually create flexibility later in life (Bradley & Caldwell, 1984). Routines also may serve to reduce impulsivity and hyperactivity in younger children by building self-control (Pruitt, 1997).

Within the first few years of life, children are meeting developmental milestones such as motoric skills, cognitive awareness, and personal/social interactions. Although children begin to seek some independence, they are still reliant upon their caregiver to provide boundaries and responsivity to emotional and physical needs (Poehlmann & Fiese, 1994). Children who have been offered structure and routine in their environment are more likely to develop social competence and adaptability in the early years. Structure and consistent consequences promote rule-governed behavior and help the child learn to seek out available positive reinforcement within familiar and unfamiliar environments. Children who develop social competence in early childhood are better equipped to achieve academic success, stable peer relations, and good mental and physical health (Keltner, 1990).

Self-regulation is an important component of social competence. As children learn to respond to rules and consequences, they begin to exert a sense of control over their environment. In return, their sense of control provided by routine and structure promotes the ability to regulate emotions, control impulses, and cope with life stressors

and daily hassles (Kliewer & Kung, 1998). Children who do not receive consistency and structure in the home have been notably more disorganized than their peers (Bradley & Caldwell, 1984). Young children who are confronted with stressors of chaotic households are less likely to respond to regular rule following at school or daycare (Keltner, 1990).

Routines also are described as embedded in positive parenting skills that provide a foundation in early child development and buffer against environmental stressors. Many studies support the influential impact of positive parenting skills on child behavior and adjustment. In a study of children ages 1 to 5 years of age, parents who used less discipline and more parental nurturing were found to have children with fewer behavior problems. Predictably, those parents who relied on frequent discipline often encountered increased child behavior problems and poor parent-child relationship overall (Brenner & Fox, 1998). Dorsey and Forehand (2003) examined several aspects correlated with effective parenting of 7 to 15-year-old children from the inner city. Effective parenting and community support were significantly related to child adjustment in spite of exposure to community violence. Parenting traits such as relationship quality, parental monitoring, and disciplinary consistency were positively related to child psychosocial adjustment and fewer internalizing and externalizing problems. Subsequently, others have noted that positive parenting can serve as a protective buffer from daily hassles and exposure to violence (Kliewer & Kung, 1998; Lanclos, 2001). Families that are cohesive, low in conflict, and flexible can aid in coping with and managing stressful situations (Lazarus & Folkman, 1987; Kliewer & Kung, 1998). Parental acceptance and emotional sharing also has been linked to children's feelings of security (Kliewer, Fearnow, & Walton, 1998).

However, the execution of positive parenting practices may be diluted by other variables such as maternal depression, stress of financial burdens, and/or single parenting or insularity (Webster-Stratton & Hammond, 1988). Preschool-age children reared in these environments often experience greater risk for externalizing behavior problems due to lack of structure and routine. Increased disruptive behaviors in preschool-age children have been strongly correlated with low rates of supervision, parental harshness, and parenting stress (Wakschlag & Keenan, 2001; Yeager, Petros, Smith, & Leadbetter, 1999). Depressed mothers have been known to provide less structure, guidance, and supervision to their children (Goodman & Brumley, 1990). Maternal depression and insularity are also related to decreased responsiveness towards her child, more punitive discipline, and a higher treatment drop out rate (McNeil, Capage, & Bennett, 2002; Dadds, 1989). In addition, parents who experience high stress and isolation are often less flexible in response to their 2 to 5-year-old child's needs and developmental changes (Wakschlag & Keenan, 2001). A mother of young children without support may be unable to parent effectively or lack the skills and thereby rely more on punitive techniques than guidance and nurturance (Brody & Forehand, 1986; Fox, Platz, & Bentley, 1995). Furthermore, single parents often report more child behavior problems than married parents (Rutter & Garmezy, 1983). In a study by Poehlmann and Fiese (1994), divorced mothers reportedly offered less social and cognitive stimulation to their 1 to 3-year-olds than mothers with spousal support.

Although these variables may introduce early developmental setbacks, children may still gain from the implementation of routines despite emotional or financial burdens. If parents can provide routines and consistent consequences for young children,

they may be able to decrease the diminishing effects that these external stressors have on children by teaching them to seek appropriate responses from the environment as well as self regulate. Children need consistency and feedback from caregivers that may be absent due a parent's low energy level, disinterest in the child, or irritability (Dadds, 1989). Conversely, when the home life is less chaotic and the toddler or preschooler's behavior is improved, the caregiver's stress levels may decrease as child behavior problems decrease. The caregiver may then respond more favorably to the child, rather than avoid or overreact, thereby improving the overall parent-child relationship (Fox et al., 1995).

Most researchers agree that the foundation of adaptive and mentally healthy children begins in the first few years of development. It is during this time that children are learning to navigate their environment (Bradley & Caldwell, 1984). With little guidance from their caregivers and chaotic home environment, young children are at risk for a variety of long-term problems. Positive parenting practices and routines have been suggested to be a crucial element in promoting social competence and self-regulation. While numerous studies have demonstrated the constructive effects of good parenting skills, little is known specifically about the impact of routines on early child development. Though recent CRQ studies measuring routines are in support of previous expert opinion, the scale only examines routines of school-age children. Despite a large emphasis on the importance of routines in early child development the establishment and maintenance of routines in younger children has yet to be explored. Therefore, extending the CRQ to children below the age of 5 provides an opportunity to empirically evaluate the effects of child routines on parenting and child behavior in the early stages of life.

Summary and Purpose

Child experts commonly report that families with consistency and routine in the home often produce more adaptive and mentally healthy children (Fiese, 2002). Family routinization has been associated with child cooperation, competence, and compliance with rules (Keltner, 1990). Yet, our empirical understanding of the impact of child routines on parent and child functioning remains quite limited.

Theoretically, routines fit within the behavioral paradigm of child and parent adjustment. Routines provide predictability of stimulus cues in the home, increase the discriminability of demands, and aid in the development of rule-governed behavior and generalized compliance (Plaud & Plaud, 1998; Sytsma et al., 2001). Providing routines may serve to elicit compliance and appropriate responses from both parent and child.

Structure and routine in the environment are a common component of behavioral parenting programs. Several studies have included the implementation of a common routine that is troublesome to parents such as bedtime or morning routines (Drabman, & Creedon; 1979 Sanders et al., 1984). It has been reported that routines alone or as a component of a multi-component intervention have successfully decreased parent-child conflict and behavior problems as well as increased positive familial interactions (Adams, & Rickert, 1989; Milan et al., 1981).

Only a few assessment tools exist to address familial routines and sociological questions, but until recently, none have addressed the impact of daily child routines. The Child Routines Questionnaire (CRQ) was developed in an attempt to measure child routines in the home (Sytsma et al., 2001). The CRQ is an empirically-based parent report scale for school age children. Excellent reliability and evidence of discriminative

and construct validity have been reported including moderate correlations with family routines and inverse correlations with child behavior problems, parenting stress, and maternal depression (Sytsma et al., 2001; Sytsma & Kelley, 2002).

More recent findings using the CRQ suggest additional evidence of the relationship between routines and child and parent outcomes. Results indicated a moderately strong positive relationship between the CRQ and children's social and adaptive behavior and a moderately strong negative relationship with externalizing behavior problems, internalizing problems, and attention problems (Sytsma-Jordan, 2003). Previous research has consistently demonstrated that children from structured and consistent home environments are more likely to develop social competence and adaptability in new situations (Keltner, 1990; Kliewer & Kung, 1998). These children also practice better coping skills when faced with daily stressors and thereby experience fewer internalizing and externalizing difficulties (Dorsey & Forehand, 2003).

Interestingly, child routines were not significantly related to SES as noted in prior studies (Sytsma-Jordan, 2003). Rather, parenting practices accounted for more variance in routines than maternal distress and demographic variables combined, suggesting that routines may be a moderating influence between child behavior problems and maternal distress (Sytsma-Jordan, 2003). These findings suggest that positive parenting practices such as implementing routines can promote healthy child psychosocial adjustment despite maternal depression and socio-economic hardship (Brenner & Fox, 1998).

Routines are commonly sited by parenting experts as invaluable in the establishment of social competence and adaptability in early childhood development. Structure and routines may aid in the development of self-regulation and better

adjustment to environmental change (Kliewer & Kung, 1998; Landy, 2002). Furthermore, the evidence suggests that positive parenting practices, such as providing structure and positive feedback are predictive of long-term social and academic success (Keltner, 1990; Patterson, 1982). Thus, if parents can implement positive parenting techniques in the early years despite economic or insular setbacks, parents and children may experience better adaptability and fewer child behavior problems.

Clearly, the CRQ shows promise in contributing additional evidence in relation to routines of school age children and the family dynamic. Yet, the role of routines in early childhood development has yet to be empirically explored. Extending the CRQ to preschool age children could be beneficial in examining factors involved in the development and maintenance of daily routines in younger children. It may also provide a further understanding of the relationships that exist between child behavior problems, child adjustment, parenting practices, and other parenting variables. Therefore, the goal of the present study is development and validation of a preschool version of the CRQ while expanding on current limitations of the measure.

Hypotheses

1. In initial and subsequent validation of the CRQ, high correlation between school-age child routines and family routines as measured by the Family Routines Inventory was reported. Similar results are expected when comparing the frequency and consistency of daily routines of preschool age children as measured by the Child Routines Questionnaire: Preschool to the Family Routines Inventory (Sytsma et al., 2001).

2. Due to the high correlation between child routines and good parenting practices and highly structured environments, positive parenting practices as measured by the

Parent Behavior Inventory should be positively related to the frequency and consistency of daily routines for preschool age children (Dorsey & Forehand, 2003; Sytsma-Jordan, 2003).

3. The CRQ has demonstrated consistent correlation to child behavior problems such that the absence of routines infers increased likelihood of child behavior problems. Therefore, the frequency and consistency of daily routines for preschool age children should also be negatively related to the intensity of child behavior problems as reported by mothers on the Eyberg Child Behavior Inventory.

4. Researchers have established that daily child routines are highly correlated with the development of child adaptability, self-regulation, and social competence (Handler, 1999; Kase, 1999; Pruit, 1997). A recent study of further validation of the CRQ supports these findings (Sytsma-Jordan, 2003). Similar results are expected on the CRQ: P such that poor child adaptability and self-regulation as measured by the Difficult Child subscale on the Parenting Stress Inventory- Short Form should be inversely related to the frequency and consistency of daily routines for preschool age children.

5. Parental stress and coercive parent-child interaction repeatedly reveal positive correlation with child behavior problems and negative correlation to the establishment of child routines and development of child prosocial skills (Patterson, 1982; Sytsma-Jordan, 2003). Accordingly, high levels of parental distress and dysfunctional parent-child interaction as measured by the corresponding subscales on the Parenting Stress Inventory- Short Form will be inversely related to frequency and consistency of preschool age child routines.

6. The literature has consistently demonstrated that depressed mothers offer diminished responsiveness and supervision to their young children (Goodman & Brumley, 1990; McNeil, Capage, & Bennett, 2002). For that reason, the presence of maternal depression and global distress measured by the Brief Symptom Inventory- 18 should be inversely correlated with the frequency and consistency of daily routines in preschool age children.

Method

<u>Step 1: Item Generation</u>

The purpose of this step was to generate a large pool of items representative of daily routines of preschool-age children. An initial pool of items was developed based on routines described by a heterogeneous group of mothers pertaining to their own one to five-year-old children. Items were grouped and a representative item for each group was generated for expert review. Finally, a group of experts reviewed and rated the developed items.

<u>Participants.</u> The participants included 51 mothers with children between the ages of one and five. For the purpose of this study, *mother* was defined as the child's primary female caretaker who may include foster mothers, step-mothers, or other relatives such as grandmothers, aunts, and cousins. Mothers were recruited from physician clinic waiting rooms, preschools, and daycares. A heterogeneous sample of mothers was included with regard to socioeconomic status, race, and number of persons in the household. Overall, mother's mean age was 32.7 years old. The reported mean household income was $31, 000.00. See Table 1 for demographic characteristics. Finally, ten experts with adequate knowledge of typical child routines reviewed and generated additional items. An expert was defined as a doctoral level psychologist or a master's level graduate student specializing in clinical child or developmental psychology.

<u>Measures</u>. The parents completed a demographic questionnaire and the Parent Survey of Preschool Age Child Routines.

<u>Demographics Questionnaire</u>. The demographics questionnaire was designed to collect descriptive information about the mother, family structure, and target child. Such

information included: age, gender, race, education level, income, occupation, number of persons in household and marital status. SES was calculated based on parent responses regarding marital status, education level, and occupation (Hollingshead, 1975). An example of the demographics questionnaire appears in Appendix A.

Table 1

Demographic Characteristics of Step 1 Sample

Parental Characteristics	Frequency (n = 51)	Percentage
	Mother's Race	
White	23	45.1
Black	14	27.5
Hispanic	3	5.9
Asian	9	17.6
Other	2	3.9
	Mother's Marital Status	
Never Married	13	25.5
Married	32	62.7
Separated	2	3.9
Divorced	4	7.8
	Mother's Education	
Junior high School	1	2.0
Partial high school	8	15.7

(Table 1 continued)

High school grad	8	15.7
Partial college	11	21.6
College or University	14	27.5
Graduate professional degree	8	15.7

Father's Education (n = 28 by mother's report)		
6th grade or less	1	2.0
High school grad	5	9.8
Partial college	9	17.6
College or University	9	17.6
Graduate professional degree	4	7.8

Mother's Occupation		
Unemployed	8	15.7
Employed	37	72.5

Father's Occupation (n = 33 by mother's report)		
Employed	33	100.0

Target Child's Age		
1	8	15.7
2	8	15.7

(Table 1 continued)

3	12	23.5
4	9	17.6
5	14	27.5

Child's Gender		
Female	26	51.0
Male	25	49.0

Type of Childcare		
Primary Caretaker	11	21.6
Babysitter/Nanny	4	7.8
Relative	8	15.7
Preschool/Daycare	21	41.2
Other	5	10.2

Parent Survey of Preschool Age Child Routines. Mothers completed a survey concerning their children's daily routines. The survey asked mothers to provide a description of their children's typical routines across a variety of categories such as morning or mealtime routines. The Parent Survey of Preschool Age Child Routines appears in Appendix B.

Procedure. Mothers were asked to participate in the study by the experimenter, research assistants, teachers, or daycare instructors. Packets were distributed within the

community, clinics, daycares, and preschools. Mothers were informed that the purpose

of the study was to learn more about the daily lives and routines of young children and

their caretakers.   Participants received a packet containing a consent form, demographic

questionnaire, and a parent survey of preschool age child routines. The consent form

informed the participants of their rights, confidentiality, and procedures of the

experiment. Research assistants were available to read the consent forms and measures

to the participants, however, this was never requested. Participants who were not directly

recruited by the researcher or her assistants were asked on the consent form to provide

their name and phone number. This was used to contact the participant by phone to ask if

they completed these forms. Twenty-five percent of the participants (n = 8) were

contacted at random by phone to verify that they had completed the forms. All 25%

participants confirmed completion of the questionnaires. After participants were

contacted, the information was stored separately from the completed questionnaires.

Results of Step 1

Item Generation. The parent survey generated 62 items representative of routines

for preschool age children. The items were grouped into 16 subtopics such as morning

routines, mealtime routines, and hygiene routines. Subtopics were reviewed by the

investigators and representative items were selected, yielding 62 items for expert review.

Expert Review and Selection. The 62 items were evaluated by ten experts.

Professionals rated each item for clarity and redundancy. Space was also provided for

additional comments or suggestions. See Appendix C for an example of the Expert

Judgment Questionnaire. Items rated as unclear or irrelevant were considered for

deletion. Accordingly, suggestions about word changes or combining items were taken

into account. Also, items suggested by the experts that were not already included in the item pool were considered for inclusion. After expert review, 42 items remained.

Step 2: Item Selection

The purpose of the second step was to select items representative of common daily routines derived from the initial 42-item pool.

Participants. Participants included 337 mothers with children between one and five-years-old recruited from physician clinic waiting rooms, preschools, and daycares. A variety of mothers were included in the study to include diversity across socioeconomic status, race, and number of persons in the household. Overall, mother's mean age was 30.0 years old. The mean household income was $30, 000.00. See Table 2 for demographic characteristics.

Measures. The parents completed a demographic questionnaire and the Child Routines Questionnaire: Preschool (Initial Version).

Demographics Questionnaire. The same demographics questionnaire used in Step 1 was included in Step 2.

Table 2

Demographic Characteristics of Step 2 Sample

Parental Characteristics	Frequency (n=337)	Percentage
	Mother's Race	
White	219	65.0
Black	74	22.0
Hispanic	29	8.6

(Table 2 continued)

Asian	11	3.3
Native American	1	0.3
Other	3	0.9

Mother's Marital Status		
Never Married	88	26.1
Married	207	61.4
Separated	12	3.6
Divorced	24	7.1
Widowed	5	1.5

Mother's Education		
Junior high School	8	2.4
Partial high school	16	4.7
High school grad	63	18.7
Partial college	120	35.6
College or University	108	32.0
Graduate professional degree	21	6.2

Father's Education (n = 220 by mother's report)		
6th grade or less	1	0.3
Junior high	2	0.6

(Table 2 continued)

Partial high school	14	4.2
High school grad	50	14.8
Partial college	64	19.0
College or University	66	19.6
Graduate professional degree	22	6.5

Mother's Occupation		
Unemployed	79	23.4
Employed	222	65.9
Student	31	9.2
Disabled	3	0.9
Retired	1	0.3

Father's Occupation (n = 231 by mother's report)		
Unemployed	2	0.6
Employed	218	64.7
Student	11	3.3

Target Child's Age		
1	67	19.9
2	75	22.3
3	69	20.5

(Table 2 continued)

4	71	21.1
5	55	16.3

	Child's Gender	
Female	170	50.4
Male	167	49.6

	Type of Childcare	
Primary Caretaker	42	12.5
Babysitter/Nanny	22	6.5
Relative	47	13.9
Preschool/Daycare	185	54.9
Other	40	11.9

Child Routines Questionnaire: Preschool (Step 2) (CRQ: P). The CRQ: P was

comprised of 42 items generated during Step 1. Mothers were asked to rate the frequency

and importance of daily and weekly routines for their one to five-year-old child. Item

frequency was rated using a five-point Likert-type scale ranging from 0 (almost never) to

4 (nearly always). Item importance was rated from 0 (not at all) to 4 (very). An example

of the CRQ: P (Step 2) appears in Appendix D.

Procedure. As in Step 1, mothers with preschool-aged children participated.

Mothers were recruited from physician clinic waiting rooms, preschools, and daycares by

the experimenter, research assistants, teachers, daycare instructors, or LSU psychology undergraduate students seeking extra credit. Participants completed packets containing a consent form, written instructions, a demographic questionnaire, and the CRQ: P. Instructions included a contact phone number in case the mothers had questions pertaining to the study. Mothers completed one packet for one of their children between the ages one to five. Participants who were not directly recruited by the researcher were asked to provide their name and phone number. The researcher called approximately 25% (n = 50) of the participants at random to verify that they completed the forms. No discrepancies were noted. All identifying information was stored separately from the completed questionnaires and destroyed at the end of the study.

Results of Step 2

Statistical Analysis. All items on the CRQ: P Frequency Scale were examined by calculating item means, standard deviations, endorsement frequency, and item-total correlations. Exploratory principle components analysis with orthogonal (Varimax) rotation was conducted through a series of iterations to evaluate the factor structure of the CRQ: P and further reduce the item pool (Kaiser, 1958; Floyd & Widaman, 1995). Scree test and eigenvalue (<1.00) were used prior to rotation to determine the number of factors to retain (Cattell, 1978). Items were systematically eliminated one at a time based on failure to load on principle components (lower than 0.40) (Spector, 1992). Therefore, items were considered for retention based on the following criteria: 1) an item-total coefficient of greater than 0.40 on the Frequency Scale and 2) factor loadings on principle components greater than 0.40 (Nunnally, 1978).

Items on the Importance scale were examined separately from the Frequency

scale. Importance ratings were used to examine relevance and clinical utility of the

items. Overall, mothers rated all items on the CRQ: P as "quite a bit" and "very much"

important, regardless of frequency rating. Since all items received high levels of

importance by mothers, the importance scale was not used in consideration of items to

eliminate.

Item Selection: Item Frequency, Means, and Standard Deviations. Items means,

standard deviations, and frequency of each response were calculated for all items on the

Frequency scale. Means ranged from 1.22 to 3.82 on the Frequency scale. Frequent

endorsement of ratings 0 ("never") or 1 ("rarely") exceeding 40% were considered low

frequency and were considered for elimination (Sytsma & Kelley, 2002). Standard

deviations ranged from 0.49 to 1.46. One item was considered for elimination due to low

frequency and a low mean (41. My child eats at a different time than the rest of the

family). A detailed account of item means and standard deviations appear in Appendix

E.

Principal Components Analysis. All 42 items were included in the principal

components analysis. Kaiser-Meyer-Olkin Measure of Sampling Adequacy yielded a

score of 0.90. Scree test and eigenvalue < 1.00 were used to determine the number of

factors to be retained. Both the initial scree test and eigenvalues < 1.00 suggested 11

factors. Exploratory principle component analysis with Varimax rotation was conducted

to evaluate the initial factor structure of the CRQ: P. Items were extracted one at a time

according to factor loadings of less than 0.40 or high loading (>0.40) on two or more

factors (Spector, 1992). Seven items were eliminated based on failure to load on

principle components (lower than 0.40) or high loading on more than one factor. Re-examination of eigenvalues of the remaining 35-items yielded seven factors greater than one. These seven factors accounted for 54% of the variance, however, were not strong or sensible. Additional varimax rotation revealed five factors accounting for 48% of the variance (Streiner, 1994). Items that were eliminated are shown below in Table 3. Alpha and item-total correlations of the remaining items and five factors are discussed below in "Scale Reliability".

Table 3

Items Eliminated During Principal Components Analysis

_____

Eliminated Items

_____

1) My child wakes at the same time each day.

8) My child eats breakfast at about the same time each morning.

14) My child takes or is given a bath daily.

27) My child plays with other children his age at least once a week.

34) My child visits extended family or friends regularly.

35) My child washes hands when they are dirty (For example, after using toilet or playing outside).

41) My child eats at a different time than the rest of the family.

_____

Final rotations revealed five factors. Please see rotation matrix in Appendix F. The five subscales were labeled Discipline, Daily Living, Activities/ Positive Attention, Educational/ Social, and Religious/ Hygiene. The Discipline subscale contained eight

items relating to discipline and parental guidance. For example, "My child has to follow household rules, such as "No hitting" or "No yelling." and "My child has a clean-up routine." The Daily Living subscales also contained eight items and represents daily living skills such as mealtime and sleep. An example is, "My child eats supper at about the same time each day." and "My child has a regular bedtime each night." The third subscale, Activities/ Positive Attention contains seven items related to family, typical activities, and positive reinforcement. For example, "My child is praised or rewarded for good behavior." and "My child engages in regular, planned activities with the family each week." The Educational/ Social subscale includes six items representing age appropriate educational opportunities and development of social skills. For instance, "My child is introduced to new objects, toys, or activities regularly." and "My child is encouraged to share toys or food with his peers or family members daily." The last subscale, Religious/ Hygiene, included five items pertaining to the family's religious activities, limits on fun activities, and the child's hygienic responsibilities. Examples included, "My child says prayers before meals and/or before bedtime." and "My child brushes teeth before bed."

Item-Total Correlations. Corrected item-total correlations were examined twice. Prior to principal components analysis, item-total correlations ranged from .14 to .61 with ten items less then 0.40. Five items of these items were greater than 0.30 (Items 5, 9, 11, 27, and 42). The other five items ranged from -.32 to .14 (Items 14, 25, 34, 39, and 41). Seven items were eliminated during principal components analysis. The remaining 35 items were examined again to reveal item-total correlations greater than 0.40 for most of the items. Three of the items reflected item-total correlation less than 0.40 (0.31, 0.35, and 0.36). These items were considered for deletion due to relatively low item-total

37

correlation; however deleting these items resulted in a deleterious effect upon Cronbach's alpha scores (Norman and Streiner, 1994). Therefore, the items were retained to preserve the robust Cronbach's alpha scores and overall factor structure.

Scale Reliability. Reliability of the scale was determined by calculating coefficient alpha for the 35 remaining items and each of the five-factors to measure internal consistency of the final item-pool. Alpha coefficient was .91 for the CRQ: P Total Frequency scale. The coefficient alpha of the five factors ranged from .85 to .72 as noted in Table 4 below.

Table 4

Reliability of Factors

_____

Factors	Cronbach's Alpha Coefficient
Full scale (Remaining Items: 35)	.91
Factor 1: (Discipline)	.85
Factor 2: (Daily Living [Meals/ Sleep])	.78
Factor 3: (Activities/ Positive Attention)	.77
Factor 4: (Educational/ Social)	.73
Factor 5: (Religious/ Hygiene)	.72

Step 3: Validation

The purpose of step 3 is to assess the initial properties of the 35-item preschool scale.

Participants. One hundred and seventy-five mothers with children between one and five-years-old were recruited from hospital or physician clinic waiting rooms,

preschools, churches, or daycares. A variety of mothers was included in the study to include diversity across socioeconomic status, employment, and number of children in the household. Overall, mother's mean age was 30.4 years old. The mean household income was $33, 000.00. Additional characteristics of the sample are described below in Table 5.

Measures. The following measures were used to examine the reliability and validity of the Child Routines Questionnaire: Preschool. The Demographics Questionnaire from Steps 1 and 2 were also administered to collect descriptive information about the mother, family structure, and target child.

Table 5

Demographic Characteristics of Step 3 Sample

Parental Characteristics	Frequency (n = 175)	Percentage
Mother's Race		
White	128	73.1
Black	40	22.9
Hispanic	3	1.7
Asian	2	1.1
Other	2	1.1
Mother's Marital Status		
Never Married	34	19.4
Married	127	72.6

(Table 5 continued)

Separated	7	4.0
Divorced	6	3.4
Widowed	1	0.6

	Mother's Education	
6th grade or less	1	0.6
Junior high	3	1.7
Partial high school	4	2.3
High school grad	33	18.9
Partial college	63	36.0
College or University	60	34.3
Graduate professional degree	11	6.3

	Father's Education (n = 137 by mother's report)	
6th grade or less	1	0.6
Partial high school	4	2.3
High school grad	38	21.7
Partial college	37	21.1
College or University	43	24.6
Graduate professional degree	14	8.0

Mother's Occupation

(Table 5 continued)

Unemployed	44	25.1
Employed	119	68.0
Student	12	6.9

Father's Occupation (n = 137 by mother's report)		
Unemployed	3	1.7
Employed	131	74.9
Student	1	0.6

Target Child's Age		
1	31	17.7
2	42	24.0
3	42	24.0
4	31	17.7
5	29	16.6

Child's Gender		
Female	89	50.9
Male	86	49.1

Type of Childcare		
Primary Caretaker	25	14.3

(Table 5 continued)

Babysitter/Nanny	22	12.6
Relative	24	13.7
Preschool/Daycare	95	54.3
Other	9	5.1

_____

Child Routines Questionnaire: Preschool (CRQ: P). The final version of the

CRQ: P from Step 2 was used in the validation phase of the scale development. The final

version of the CRQ: P appears in Appendix G. The CRQ: P (Final Version) contains 35

items generated during Step 2. Routines were rated on a five-point Likert scale ranging

from 0 (never) to 4 (nearly always). As noted in Step 2, the CRQ: P demonstrated good

internal consistency (.91).

Family Routines Inventory (FRI). The FRI (Jensen et al., 1983) is a 28-item

parent report measure of family routines. Please see Appendix H. The scale was

developed to explore routines and rituals present in the daily life of a family with at least

one child between infancy and 16 years of age (Boyce, et al., 1983). Two subscales are

included in the measure: the Endorsement/Adherence scale, rated on a 4-point rating

scale ranging from 0 (almost never) to 3 (always) and the Importance scale, rated on a 3-

point rating scale ranging from 0 (not at all important) to 2 (very important). The FRI has

demonstrated adequate reliability and initial evidence of validity (Jensen, et al., 1983).

Eyberg Child Behavior Inventory (ECBI). The ECBI (Eyberg & Ross, 1978) is a

parent report measure of conduct problems in children aged two to 17 (Eyberg &

Robinson, 1983; Robinson, Eyberg, & Ross, 1980). The items are rated for frequency on

a 7-point Likert scale ranging from 1 (never) to 7 (always) on the Intensity scale. Parents

also indicate the importance of problem on a yes/no scale.   Total Intensity and Total

Problem yield scores ranging from 36 to 262 and 0 to 36 respectively.

Parenting Stress Index- Short Form (PSI-SF; Abidin, 1995). The PSI-SF is a 36-

item scale measuring the stress levels and source of stress in the parent-child system for

parents with children between the ages one and 12. The PSI- SF is comprised of a

composite Total Stress scale and three subscales including Parental Distress, Parent-Child

Dysfunctional Interaction, and Difficult Child. The Total Stress subscale examines the

amount of stress from all three subscales. The Parental Distress subscale identifies effects

of external stressors that may impede appropriate parenting. The Parent-Child

Dysfunctional Interaction subscale measures a parent's perception of their child. High

scores on the Difficult Child subscale may be indicative of child self-regulatory

problems, behavior problems, and a lack limit setting in the home. The PSI-SF has

demonstrated excellent reliability and validity and high correlation with the PSI long

form. The PSI-SF has been used extensively to examine parental stress and effects of

parent training (Anastopoulos & Shelton, 2001).

Parent Behavior Inventory (PBI). The PBI (Lovejoy, Weis, O'Hare, & Rubin,

1999) is a 20-item parent report of parent child-interaction and common disciplinary

practices used with their preschool to school-aged children as seen in Appendix I.   The

scale consists of two factors: Hostile/Coercive and Supportive/ Engaged. Items are

scored on a 6-point Likert-type scale ranging from 0 (not at all true) to 6 (very much

true). The PBI has demonstrated strong reliability and validity. The PBI has shown

moderate relationship with measures of parental affect, parental stress, and child behavior problems.

Brief Symptom Inventory 18 (BSI-18; Derogatis, 1996). The BSI-18 is an 18-item self-report scale measuring psychological symptoms of adults in community, medical, and clinical settings. The BSI-18 consists of a composite Global Stress scale and three subscales: Anxiety, Depression, and Somatization. Symptoms are rated on a 5-point Likert-type scale ranging from 0 (not at all) to 4 (extremely) based on the past seven days. The BSI-18 correlates highly (<.90) with the SCL-90 from which it was derived (Derogatis, 1994). The SCL-90 has been used extensively in research and has demonstrated excellent psychometric properties (Derogatis, 1994).

Procedure. Mothers were recruited from physician clinic waiting rooms, preschools, and daycares by the experimenter, research assistants, teachers, daycare instructors, or LSU psychology undergraduate students seeking extra credit. Mothers were asked to complete several self-report measures (Part A) including a consent form, a demographics questionnaire, the Child Routines Questionnaire: Preschool, the Family Routines Inventory, the Eyberg Child Behavior Inventory, the Parenting Stress Inventory: Short Form, the Parenting Behavior Inventory, and the Brief Symptom Inventory 18. The packet took approximately 20 to 40 minutes to complete. This packet was titled "Part A" to indicate to mothers that this packet was to be completed before "Part B". "Part B" is described below. Approximately, 81 mothers refused to complete the packets (Part A and B) typically giving reasons of time constraint.

Upon completion of the packet (Part A), mothers were asked to participate in a second completion of the CRQ: P (Part B) two weeks later to assess reliability across

time. If they chose to complete the second CRQ: P (Part B), they provided their name, mailing address, and phone number. One hundred and one mothers agreed to complete the measure again. A reminder call was placed to the parents within one week of completing Part A. Two weeks after completing Part A, 53 mothers completed the second CRQ: P and mailed it in the addressed, stamped envelope that was attached to the packet (Part B).

As compensation, all participants who completed and mailed in the second CRQ: P (Part B) received a $5.00 Wal-Mart gift certificate. Gift certificates were purchased by the researcher and mailed to participants. All identifying information was destroyed once the gift certificates were mailed.

In addition, whenever possible, fathers living in the same household were asked to complete the packet. This information was used to examine inter-rater reliability. Fifty-one fathers completed the packet (Part A) at time 1. In an effort to prevent biased responses, fathers were asked to sign a second form verifying that they did not collaborate with the mother of their child when completing the packet.

As in Steps 1 and 2, phone calls were placed to 25% of parents at random who were not directly recruited by the researcher in order to confirm their identity and completion of the packets. Twenty-five percent of participants (30) that were not collected by the researcher were called. All 25% of participants confirmed completion of the questionnaires.

Results of Step 3

Item Means and Standard Deviations. Item means and standard deviations were recalculated for all items in the scale and are described in Appendix J. Item means

45

ranged from 2.15 to 3.65, with an overall mean of 3.11. Standard deviations ranged from .59 to 1.42.

Item-Total Correlations. Corrected item-total correlations were calculated for all items as reported in Appendix J. Item-total correlations for the Total scale ranged from .06 to .58. Three items fell below .30 (items 5, 9, and 22) ranging from .06 to .25. Five items (items 8, 12, 13, 15, 20, and 32) ranged from .30 to .37. The item-total correlation for Factor 1 (Discipline) ranged from .35 to .69. Factor 2 (Daily Living) ranged from .28 to 68. Factor 3 (Activities/ Positive Attention) demonstrated a range of .17 to .43. Factor 4 (Education/ Social) and Factor 5 (Religious/ Hygiene) ranged from .21 to .57 and .31 to .51, respectively.

Internal Consistency. Alpha coefficients were recalculated to examine the internal consistency of the remaining test items. Values were compared with the estimates established in Step 2 of the study. Cronbach's Alpha for the entire sample yielded a .89 for the Total scale, which is comparable to the results in Step 2 (coefficient alpha of .91). Calculations of the subscales yielded a coefficient alpha of .83 on the Discipline subscale, .80 on the Daily Living subscale, .65 on the Activities/ Positive Attention subscale, .63 on the Education/ Social, and .62 on the Religious/ Hygiene subscale.

Test-Retest. Fifty-three mothers (see Table 6) completed the measure again two weeks after completing the CRQ: P for the first time to examine temporal stability of the CRQ: P. The mean age of the mothers was 32.4 years old. The average household income was $36,000. The CRQ: P demonstrated adequate test-retest reliability. The Pearson product-moment correlation coefficient between the two sets of total scores

(Time 1 and Time 2) was r = .74. The correlation coefficients for the subscales ranged from .65 to .82 (see Table 7). Items were also examined and revealed correlation coefficients ranging from .29 to .83.

Table 6

Demographics Characteristics of the Retest Sample

	Frequency (n= 53)	Percentage
Mother's Race		
White	44	83.0
Black	8	15.1
Asian	1	1.9
Marital Status		
Never Married	6	20.4
Married	43	81.1
Separated	2	3.8
Divorced	2	3.8
Mother's Education		
6th grade or less	1	1.9
Junior high	1	1.9
High school grad	9	17.1
Partial college	15	28.3

(Table 6 continued)

College or University	20	37.7
Graduate professional degree	7	13.2

	Mother's Occupation	
Unemployed	11	20.8
Employed	41	77.4
Student	1	1.9

	Target Child's Age	
1	8	15.1
2	13	24.5
3	19	35.8
4	5	9.4
5	8	15.1

	Child's Gender	
Female	33	62.3
Male	20	37.7

Table 7

Test-Retest Reliability Coefficients

CRQ: P Total Scale and Subscales	Correlation Coefficient of Time 1 and 2

(Table 7 continued)

CRQ: P Total Routines	.74**
CRQ: P Discipline	.82**
CRQ: P Daily Living	.68**
CRQ: P Activities/ Positive Attention	.65**
CRQ: P Educational Social	.76**
CRQ: P Religious/ Hygiene	.80**

Note: *p < .05 level, **p < .01 level.

Inter-Rater Reliability. In an effort to examine the inter-rater reliability of the CRQ: P, approximately 71 fathers were also asked to complete the measure at Time 1. Fifty-one fathers completed the scale. The Pearson product-moment correlation coefficient was calculated to examine the consistency between mother and father report concerning their child's typical routines. Agreement between the parents' observations yielded adequate reliability (r = .73) for the Total Routines score (Achenbach, et al., 1987). Agreement on the subscales ranged from .61 to .75 (see Table 9). Item Agreement between mothers and fathers ranged from .16 to .89. See Appendix K for details. Father's mean age was 33- years-old and the mean of household income was $37,000. Additional demographics of the fathers who participated in the study are shown below in Table 8.

Table 8

Demographics Characteristics of the Fathers' Sample

(Table 8 continued)

Father's Characteristics	Frequency (n= 51)	Percentage
	Father's Race	
White	44	86.0
Black	6	11.8
Asian	1	2.0
	Marital Status	
Never Married	2	3.9
Married	47	92.2
Divorced	2	4.0
	Father's Education	
Partial high school	1	2.0
High school grad	10	19.6
Partial college	17	33.4
College or University	16	31.4
Graduate professional degree	5	9.8
	Father's Occupation	
Employed	48	94.1
Student	1	2.0

(Table 8 continued)

Retired	1	2.0

	Target Child's Age	
1	8	15.7
2	13	25.5
3	13	25.5
4	10	19.6
5	7	13.7

	Child's Gender	
Female	22	43.1
Male	29	56.9

Table 9

Inter-rater Reliability Coefficients

Factors	Correlation Coefficient: Agreement between Mothers and Fathers
CRQ: P Total Routines	.73**
CRQ: P Discipline	.61**
CRQ: P Daily Living	.75**
CRQ: P Activities/ Positive Attention	.64**
CRQ: P Educational Social	.70**

(Table 9 continued)

CRQ: P Religious/ Hygiene   .71**

Note: *p < .05 level, **p < .01 level.

        <u>Validity</u>. The concurrent validity of the CRQ: P was estimated using the FRI, ECBI, PSI-SF, PBI, and BSI 18 as criterion measures. A variety of hypotheses were tested by calculating the Pearson product-moment correlation between the CRQ: P Frequency total scores and existing measures presumed to be related to the CRQ: P. The coefficient of determination (adjusted r^2) was calculated to account for the amount of shared variance between scores described in each hypothesis. Further exploratory analyses were conducted to assess positive relationships found between preschool-age child routines and family routines, child adaptability, and parenting practices. Also, inverse relationships between preschool-age child routines and child behavior problems, and parental stress, parent-child dysfunction, or additional parental psychopathologies were explored further.   A summary of validation correlation for each hypothesis appears in Table 10. A more detailed correlation matrix appears in Appendix L.

        <u>Hypothesis 1.</u> Based on initial and subsequent validation of the CRQ, the first hypothesis stated that frequency of preschool-age child routines would be positively related to frequency of family routines. This was tested by correlating the CRQ: P with the FRI, a measure of family routines. This hypothesis was supported by a strong positive relationship between scores on the FRI Endorsement/Adherence subscale and the frequency of children's routines, r (175) = .61, p< .000. The coefficient of determination indicated that the FRI accounted for 37% (adjusted r^2 = .37) of the variance of the CRQ:

52

P. The five CRQ: P subscales demonstrated moderately high correlation with the FRI: Endorsement/ Adherence subscale ranging from .39 to .55.

Hypothesis 2. The second hypothesis postulated that the presence of positive parenting practices as measured by the Parent Behavior Inventory would be positively related to the frequency of daily routines for preschool age children. This was tested by correlating the CRQ: P with the PBI: Supportive/ Engaged subscale. Results indicated a significant positive correlation between the presence of positive parenting practices and the use of child routines, r (175) = .57, p < .000. The coefficient of determination was calculated to account for level of variance between the PBI score and the CRQ: P score (adjusted r^2 = .32). Notably, all five subscales of the CRQ: P were correlated with the PBI: Supportive/ Engaged subscale ranging from .25 to .59.

Hypothesis 3. The third hypothesis stated that the frequency of daily routines for preschool-age children should be negatively related to the frequency of child behavior problems as measured by the ECBI subscales. In support of the hypothesis, the Total Intensity subscale produced a moderately negative correlation with the scores from the CRQ: P, r (175) = -.26, p < .001. The Total Problem subscale also demonstrated a moderate negative correlation with the CRQ: P total score, r (175) = -.29, p < .000.

The coefficients of determination indicated that the ECBI Total Intensity accounted for 6% (adjusted r^2 = .06) of the variance and the ECBI Total Problem accounted for 8% (adjusted r^2 = .08) of the variance of the CRQ: P score. Subscales and items were evaluated for further correlation. The ECBI Total Intensity subscale showed moderate negative correlation with the Daily Living (r = -.19), Activities/ Positive Attention (r = -.29), Educational/ Social (r = -.30), and Religious/ Hygiene (r = -.19)

subscales. Similarly, the Total Problem subscale demonstrated moderate negative

correlation with the Daily Living ($r = -.20$), Activities/ Positive Attention ($r = -.33$),

Educational/ Social ($r = -.34$), and Religious/ Hygiene ($r = -.19$) subscales.

Hypothesis 4. The fourth hypothesis denoted that poor child adaptability and self-

regulation as measured by the Difficult Child subscale on the Parenting Stress Inventory-

Short Form should be inversely related to the frequency of daily routines for preschool-

age children. Therefore, frequency of preschool-age child routines measured by the

CRQ: P would be correlated with low scores on the Difficult Child subscale of the PSI-

SF. Results indicated a moderate, negative correlation between the two scores r (175) = -

.30, p < .000.

Further calculations indicated an adjusted r^2 of .08 suggesting that the Difficult

Child subscale accounts for 8% of the variance of the CRQ: P scores. Upon further

examination, the PSI: SF Difficult Child subscale demonstrated moderate negative

correlation with the Daily Living, Activities/ Positive Attention, and Educational/ Social

subscales ranging from -.15 to -.39.

Hypothesis 5. As noted in the fifth hypothesis, high levels of parental distress and

dysfunctional parent-child interaction as measured by the corresponding subscales on the

PSI- SF should be inversely related to of preschool age child routines of the CRQ: P.

Results indicated a moderately negative correlation between the Parental Distress

subscale and the CRQ: P total score, r (175) = -.23, p < .002. Similar results were also

found between the Parent-Child Dysfunctional Interaction subscale and the CRQ: P

score, r (175) = -.30, p < .000.

Again, coefficients of determination were calculated to examine the level of variance accounted for by the PSI subscales. Coefficients yielded adjusted r^2 of .05 and .08 for the Parental Distress and Parent-Child Dysfunctional Interaction subscale scores. After closer review, the Parental Distress subscales indicated inverse correlation the Activities/ Positive Attention, Educational/ Social, and Religious/ Hygiene subscales (r = -.20 to -.25). The Parent-Child Dysfunctional Interaction subscale demonstrated negative correlation with the Daily Living, Activities/ Positive Attention, and Educational/ Social (r = -.25 to -.42) subscales.

Hypothesis 6. The last hypothesis posited that the presence of maternal depression measured by the BSI- 18 would be inversely correlated with the frequency of daily routines in preschool age children. A moderately negative correlation was noted between the scores of the depression subscale and the CRQ: P, r (175) = -.24, p < 002.

Since a relationship was found, the coefficient of determination was calculated indicating an adjusted r^2 of .05 or 5% of variance of the CRQ: P accounted for by the BSI- 18 Depression subscale. Further analyses revealed correlation with the Daily Living, Activities/ Positive Attention, and Educational/ Social (r = -.18 to -.28) subscales.

Table 10

Validation Correlation of Hypotheses

Hypothesis	Subscale	Correlation Coefficient	Adjusted r Squared
Hypothesis 1: CRQ: P	FRI: Endorsement/Adherence	.61**	.37
Hypothesis 2: CRQ: P	PBI: Supportive/Engaged	.57**	.32
Hypothesis 3: CRQ: P	ECBI: Total Intensity	-.26**	.06

(Table 10 continued)

		ECBI: Total Problem	-.29**	.08
Hypothesis 4: CRQ: P		PSI: SF: Difficult Child	-.30**	.08
Hypothesis 5: CRQ: P		PSI: SF: Parental Distress	-.23**	.05
		PSI: SF: Parent-Child Interaction	-.30**	.08
Hypothesis 6: CRQ: P		BSI 18: Depression	-.24**	.05

Note: *p < .05 level, **p < .01 level.

Discussion

Experts emphasize routines as a paramount practice in successful child rearing. Only recently, however, has empirical evidence begun to corroborate this theory. While many researchers and clinicians have documented the use of daily child routines in their parenting packages and treatment studies, none has measured the effects of child routines directly. The emergence of The Child Routines Questionnaire offered ample evidence of the importance of child routines in school-age children. Significant findings link a lack of routines to child behavior problems, poor parenting practices, and parental psychopathology (Sytsma et al., 2001; Sytsma-Jordan, Kelley, & Henderson, 2002; Jordan, 2003). These data have offered insightful correlation between routines and overall child adjustment, and parental well-being.

The present study aimed to contribute to this literature by extending the CRQ to children ages one to five years through development and validation of the Child Routines Questionnaire: Preschool. With the help of a heterogeneous sample of 51 mothers, an initial item pool yielded 62 items categorically grouped for expert review. After reducing the item pool to 42 items, the initial version of the scale was administered to a moderately large heterogeneous sample of mothers (n = 337). After further item elimination, a final scale of 35 items was administered to a new diverse sample of mothers (n = 175), as well as fathers (n = 51), to explore validity and additional reliability.

Overall, results of the present study were promising. The CRQ: P established good internal consistency, adequate test-retest reliability, and good inter-rater reliability, as well as moderate evidence of validity. Step 2 yielded excellent internal consistency of the full scale (coefficient alpha of .91) and a good to moderate estimate of reliability of

the subscales (alpha coefficients were .85, .78, .77, .73 and, .72) (DeVellis, 1991). In the validation phase (Step 3), the full scale again yielded excellent internal consistency with a coefficient alpha of .89. The five subscales of Step 3 demonstrated marginal replication of reliability. The first two subscales (Discipline and Daily Living) corresponded well with that of Step 2 (alpha coefficient of .83 and .80 respectively). Nevertheless, the last three subscales yielded alpha coefficients of .65, .63, and .62 for the corresponding subscales: Activities/ Positive Attention, Educational/ Social, and Religious/ Hygiene.

The CRQ: P demonstrated adequate temporal stability over a 2-week period (Litwin, 1995). The Pearson product-moment correlation coefficient between the two sets of total scores (Time 1 and Time 2) was $r = .74$. The correlation coefficients for the subscales ranged from .65 to .82.

Additionally, the CRQ: P demonstrated high inter-rater reliability between mothers and fathers. Agreement between the parents' observations yielded a correlation coefficient of .73 for the Total Routines score. Agreement on the subscales ranged from .61 to .75. These are very positive results considering that the literature reflects much lower cross-informant correlations on average ($r = .60$) (Achenbach, et al., 1987).

The CRQ: P validity estimates showed promise. All proposed hypotheses were met with significance. As expected in Hypothesis 1, daily child routines correlated positively with family routines as measured by the FRI. The full scale and all five subscales demonstrated significance with both the Endorsement/Adherence and Importance subscales of the FRI signifying that the CRQ: P is tapping similar constructs.

As indicated in the second hypothesis, the CRQ: P full scale and subscales correlated positively with the PBI: Supportive/ Engaged subscale. Interestingly, the

strongest relationship was with the Educational/ Social and Activities/ Positive Attention subscales. The items in these subscales capture positive parent-child interactions, such as parent driven activities and direction and positive reinforcement for good behavior. These findings are in line with the literature documenting positive parenting behaviors and support the view that child routines are a necessary component of positive parenting (Dorsey & Forehand, 2003; Kliewer & Kung, 1998; Kliewer et al., 1998).

Conversely, child routines were inversely related to child behavior problems as noted in Hypothesis 3. These findings support previous research of the CRQ (Sytsma et al., 2001; Sytsma-Jordan et al., 2002; Jordan, 2003). Also consistent with the CRQ (Sytsma et al, 2001) is that the CRQ: P Discipline subscale did not yield significant results with the ECBI subscales. Yet the literature supports negative association between child behavior problems and deficient discipline (Wakschlag & Keenan, 2001; Yeager et al., 1999). It is possible that there may be an issue of defensive responding or parents may find discipline developmentally unsuitable in such a young age group.

As expected in Hypothesis 4, poor child adaptability and self-regulation revealed a negative relationship with child routines. The Difficult Child subscale of the PSI: SF identifies children who are may have self-regulatory and adjustment problems. Parents of these children describe their children as difficult to manage, noncompliant, demanding, and temperamental. The relationship between the CRQ: P and this subscale supports previous literature implying that routines play a significant role in child adaptability and self-regulation (Landy, 2002; Kliewer & Kung, 1998; Bradley & Caldwell, 1984; Keltner, 1990).

Finally, in Hypotheses 5 and 6, the CRQ: P demonstrated a converse relationship with subscales measuring parenting stress, negative parent-child relationship, and maternal depression as measured by the PSI: SF and the BSI 18. These results contribute to the notion that maternal stressors and depression influence a mother's ability to provide her child with appropriate supervision, structure, and emotional support (Wakschlag & Keenan, 2001; Brody & Forehand, 1986; Fox et al., 1995; Webster-Stratton & Hammond, 1988; Goodman & Brumley, 1990; McNeil et al., 2002; Dadds, 1989). Yet, none of these three subscales correlated with the CRQ: P Discipline subscale, which is consistent to subsequent finding of the CRQ (Sytsma et al., 2001; Sytsma-Jordan et al., 2002; Jordan, 2003). All the same, these findings are contrary to empirical evidence of a relationship between discipline and maternal distress and psychopathology. As noted above, the lack of relationship may suggest a bias in responding or a lack of agreement among parents concerning disciplinary measures for young children.

Additional variables not included in the hypotheses were also explored. Inverse correlation were noted between daily child routines and parental somatization, anxiety, and overall psychological distress. This is consistent with the CRQ (Jordan, 2003) and several other studies that have documented a relationship between family routines and physical health and anxiety (Fiese & Kline, 1993, Boyce et al., 1977).

Of note, the PBI: Hostile/ Coercive subscale demonstrated a significant negative relationship with only two of the CRQ: P factors (Discipline and Activities/ Positive Attention) and failed to reach significance with the full scale. This is curious since the PBI: Hostile/ Coercive subscale has demonstrated significant correlation with child

routines in subsequent studies of the CRQ for school-aged children (Jordan, 2003). This brings into question why a similar finding was not noted in this study and should be considered in future studies. Again, there may be an issue of defensive responding with this particular sample. Nonetheless, the subscales that met with significance are theoretically appropriate. The Discipline and Activities/ Positive Attention subscales of the CRQ: P imply positive instruction, appropriate limit setting, and positive parent attention, which is conversely related to negative parenting practices as supported in the literature (Brenner & Fox, 1998; Dorsey and Forehand, 2003).

Limitations

While the CRQ: P demonstrated adequate psychometrics overall, there are several limitations to consider and address in future studies. Due to the subject matter of the scale, many of the items did overlap somewhat with other factors. While orthogonal (Varimax) rotation was used in the factor analysis in Step 2, oblique rotation was examined briefly. There was not sufficient difference between the two methodologies to justify using oblique rotation over the more commonly used Varimax, however, this may be of use in revision of the scale with a larger sample. Additionally, the Varimax method was also used in the development of the CRQ (Sytsma, et al., 2001).

Another curious development was the relatively low variance accounted for by the five factors. The five factors accounted for only 48% of the variance in Step 2. Optimally, this figure should be higher, but nears the lower limits of 50% suggested by Streiner (1994). It may be worth addressing in future research.

Additional exploration of the scale may shed light on the unusual pattern of inter-item correlation forming Factor 5 (Religious/ Hygiene). While most of the items in

Factor 5 are seemingly strong items, they are not theoretically cohesive. It is curious why these items group together and brings into question the integrity of this factor overall.

On the topic of validity, Messick (1995) suggests exploration of different aspects of validity in order to provide meaning to test scores. Presently, only concurrent validity derived from parent report exists, posing potential threat to construct validity. One solution is to obtain observations of child routines in the home either directly or by parent daily monitoring to determine the precision of CRQ: P measurement. Moreover, a consistent problem with the CRQ (for school-aged children) has been obtaining discriminant validity (Sytsma et al., 2001). In this study, discriminant validity was not addressed due to difficulty identifying variables that are not influenced by the presence of daily routines in children's lives. Identifying variables that that demonstrate lower magnitudes of correlation with the CRQ: P should be explored to provide additional evidence of validity.

Furthermore, minorities, young parents, and lower income families represent only a small portion of the overall sample. While the percentage of minority and lower income participants in the samples mirrored Hollingshead index, the majority of participants were White middle class, over 30 years of age. This poses a concern for the validity of the CRQ: P with alternate populations. These results may be reflected in the validation coefficients, which were slightly lower than that found in the CRQ for school-age children (Sytsma et al., 2001).

Also of concern are the test-retest and interrater reliability samples. The mean age and income rose substantially in these two samples. Mothers who agreed to complete the second CRQ: P (n = 101), received reminder phone calls. Many mothers claimed to

have lost the scale or forgotten about it, if they were reached at all. Despite reminder calls and offered compensation, only 53 mothers returned the CRQ: P a second time. It is conceivable that the mothers who participated in the test-retest portion of the study may live in a more ordered, structured home environment than their counterparts. Literature suggests a correlation between chaotic households and the stress of financial burdens (Webster-Stratton & Hammond, 1988). This raises the question of the stability of the scale in a more chaotic environment. Similarly, the fathers who completed the CRQ: P averaged higher household income and age than the national population, which may confound the reliability results of cross-informant agreement. Agreement between mothers and fathers was excellent, yet the sample did not reflect families with economic setbacks or minorities. In further revision of the CRQ: P, data collection should aim to provide better norms of minority and lower income households.

Nonetheless, preliminary reliability and validity findings of the CRQ: P were satisfactory. The CRQ: P can only benefit from additional research to improve upon the psychometric properties and utilization of this measure. Prospective studies may illuminate the strengths of the measure while correcting the limitations.

Future Research

The current study offered preliminary psychometric properties of the CRQ: P. Additional data are needed to further evaluate evidence of validity and reliability of the scale. The CRQ: P presents several limitations that should be addressed in prospective studies through scale revision, replication, and direct observations.

Once the psychometric limitations of the CRQ: P have been addressed there are several areas that may be worth exploring. Reasons for the lack of correlation between

the CRQ: P and negative parenting practices should be further examined. For instance, there may problems with defensive responding or incongruent reporting of parental discipline measures of young children. Also, relationships between the CRQ and the CRQ: P could be explored, such as a continuity of construct. Additionally, the integrity of the CRQ: P would benefit from exploring attrition rates and providing norms representative of minorities and lower income families. Furthermore, evaluating a larger and more diverse sample of fathers might allow for examination of internal consistency of the CRQ: P specific to paternal childrearing.

Identifying predictors of child routines in this age group may be of use to examine. Future researchers might consider pursuing structural models complementary to subsequent studies of the CRQ, such as child internalizing problems, inattentiveness, and child routines (Jordan, 2003). Also, it may be of interest to explore structural models of maternal mental and physical health, child adjustment, and daily child routines. Areas specific to early development, such as developmental disabilities, acquisition of social skills, and sleeping and feeding difficulties also may be advantageous to study (Poehlmann & Fiese, 1994; Bradley & Caldwell, 1984).

With further validation, the CRQ: P could be extended to treatment outcome studies to measure child routines directly when used in parenting packages, behavior modification, or to establish particular child routines in the home (McMahon & Forehand, 2003; Seymour, 1987; Drabman, & Creedon, 1979; Sanders et al., 1984). This measure presents as a promising assessment tool providing a means to contribute to the child routines literature. The CRQ: P may benefit both researchers and clinicians alike and contribute to our general understanding of child routines in early development.

References

Abidin, R. R.., & Brunner, J. F. (1995). Development of a Parenting Alliance Inventory. *Journal of Clinical Child Psychology, 24* (1), 31-40.

Achenbach, T. M., McConaughy, S. H., & Howell, C. T. (1987). Child/ adolescent behavioral and emotional problems: Implications of cross-informant correlations for situational specificity. *Psychological Bulletin, 101* 213-232.

Adams, C. D. & Drabman, R. S. (1995). Improving morning interactions: Beat-the-Buzzer with a boy having multiple handicaps. *Child & Family Behavior Therapy, 17,* 13-26.

Adams, L. A., & Rickert, V. I. (1989). Reducing bedtime tantrums: Comparison between positive routines and graduated extinction. *Pediatrics, 84,* 756-761.

Anastopoulos, A. D., & Shelton, T. L. (2001). *Assessing attention deficit hyperactivity disorder.* Dordrecht, Netherlands: Kluwer Academic Publishers.

Baez, T. (2000). *The effects of stress on emotional well-being and resiliency through mediating mechanisms of active coping skills and family hardiness.* Dissertation Abstracts International Section A: Humanities & Social Sciences, 60 (7-A).

Barkley, R. A. (1997). *Defiant children: A clinician's manual for assessment and parent training.* 2nd ed. New York: Guilford Press.

Bennett, L. A., Wolin, S. J., & McAvity, K. J. (1988). Family identity, ritual, and myth: A cultural perspective on life cycle transition. In C. J. Falicov (Ed.), *Family transitions: Continuity and change over the life cycle,* 211-234. New York: Guilford Press.

Boyce, W. T., Jensen, E. W., Cassel, J. C., Collier, A. M., Smith, A. H., & Ramey, C. T. (1977). Influence of life events and family routines on childhood respiratory tract illness. *Pediatrics, 60,* 609-615.

Boyce, W. T., Jensen, E. W., James, S. A., & Peacock, J. L. (1983). The Family Routines Inventory: Theoretical origins. *Social Science and Medicine, 17,* 193-200.

Bradley, R. H., & Caldwell, B. M. (1984). The relation of infants' home environment to achievement test performance in first grade: A follow-up study. *Child Development, 55*, 803-809.

Brenner, V. & Fox, R. A. (1998). Parental discipline and behavior problems in young children. *Journal of Genetic Psychology, 159,* 251-256.

Brody, G. H., & Flor, D. L. (1997). Maternal psychological functioning, family processes, and child adjustment in rural, single-parent, African American families. *Developmental Psychology, 33,* 1000-1011.

Brody, G. H. & Forehand, R. (1986). Maternal perceptions of child maladjustment as a function of the combined influence of child behavior and maternal depression. *Journal of Consulting and Clinical Psychology, 54,* 237-240.

Cassidy A. (1992). When, why, and how to get your baby into a routine. *Working Mother, 15* (56), 59-60.

Cattell, R. B. (1978). *The use of factor analysis in behavioral and life sciences*. New York: Plenum.

Chance, P. (1999). *Learning and Behavior*. Pacific Grove: Brooks/Cole Publishing Company.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16,* 297-334.

Cummings, E. M. & Davies, P. T. (1994). Maternal depression and child development. *Journal of Child Psychology and Psychiatry, 35,* 73-112.

Curtis, B. (2000, October). Why routines matter. *Christian Parenting Today, 13,* 27.

Dadds, M. R. (1987). Families and origins of child behavior problems. *Family Process, 26,* 341-357.

Derogatis, L. R. (1994). *Symptom Checklist-90-Revised manual.* Minnetonka, MN: NCS Assessments.

Derogatis, L. R. (1996). *Brief Symptom Inventory-18 manual.* Minnetonka, MN: NCS Assessments.

DeVellis, R. F. (1991). *Scale Development: Theory and Applications*. Newbury Park, California: Sage Publications.

Dorsey, S., & Forehand, R. (2003). The relation of social capital to child psychosocial adjustment difficulties: The role of positive parenting and neighborhood dangerousness. *Journal of Psychopathology & Behavioral Assessment, 25* (1), 11-23.

Drabman, R. S. & Creedon, D. L. (1979). Beat the buzzer. *Child Behavior Therapy, 1,* 295-296.

Edwards, K. J., & Christophersen, E. R. (1994). Treating common sleep problems of young children. *Journal of Developmental & Behavioral Pediatrics, 15* (3), 207-213.

Eisenberg, A., Murkoff, H. E., & Hathaway, S. E. (1996). *What to expect the toddler years.* New York: Workman Publishing Company.

Evans, D. E., Leckman, J. F., Carter, A., Rezneck, J. S., Henshaw, D., King, R.A., and Pauls, D. (1997). Ritual, habit, and perfectionism: The prevalence and development of compulsive-like behavior in normal young children. *Child Development, 68* (1), 58-68.

Eyberg, S. M. & Robinson, E. A. (1983). Conduct problem behavior: Standardization of a behavioral rating scale with adolescents. *Journal of Clinical Child Psychology, 12*, 347-354.

Eyberg, S. M., & Ross, A. W. (1978). Assessment of child behavior problems: The validation of a new inventory. *Journal of Clinical Child Psychology, 7,* 113-116

Fiese, B. H. & Kline, C. A. (1993). Development of the Family Ritual Questionnaire: Initial reliability and validation studies. *Journal of Family Psychology, 6,* 290-299.

Fiese, B. H. (2002). Routines of daily living and rituals in family life: A glimpse at stability and change during the early child-raising years. *Zero to Three, February/ March,* 10-13.

Fiese, B. H., Tomcho, T. J., Douglas, M., Josephs, K., Poltrock, S., & Baker, T. (2002). A review of 50 years of research on naturally occurring family routines and rituals: Cause for celebration? *Journal of Family Psychology, 16* (4), 381-390.

Fiese, B.H., & Wamboldt, F.S. (2000). Family routines, rituals, and asthma management: A proposal for family-based strategies to increase treatment adherence. *Families, Systems, & Health, 18* (4), 405- 418.

Floyd, F. J. & Widaman, K. F. (1995). Factor analysis in the development and refinement of clinical assessment instruments. *Psychological Assessment, 7*, 286-299

Fox, R. A., Platz, D. L., & Bentley, K. S. (1995). Maternal factors related to parenting practices, developmental expectations, and perceptions of child behavior problems. *Journal of Genetic Psychology, 156,* 431-441.

Garmezy, N., & Rutter, M. (1983). *Stress, Coping, and Development in Children*. Baltimore, MD: Johns Hopkins University Press.

Gerard, A. B. (1994). *Parent Child Relationship Inventory manual.* Los Angeles, CA:
    Western Psychological Services.

Goodman, S. H., & Brumley, H. E. (1990). *Schizophrenic and depressed mothers:
    Relational deficits in parenting.* Developmental Psychology, 26 (1), 31-39.

Handler, C. S. (1997, November). "It's time to go": How to get your preschooler to
    switch gears without tears. *Parents Magazine, 72,*181-184.

Hembree-Kigin, T., & McNeil, C. (1995). *Parent-child interaction therapy.* New York:
    Plenum Press.

Hollingshead, A. B. (1975). A *four-factor index of social status.* New Haven, CT: Yale
    University Sociology Department.

Jensen, E. W., James, S. A., Boyce, W. T., & Hartnett, S. A. (1983). The Family
    Routines Inventory: Development and validation. *Social Science and Medicine,
    17,* 201-211.

Kaiser, H. G. (1958). The varimax criterion for analytic rotation in factor analysis.
    Psychometrika, 23, 187-200.

Kase, L. M. (1999a, February). Routines to the rescue. *Parents Magazine, 74,* 119-120.

Keltner, B. (1990). Family characteristics of preschool social competence among black
    children in a head start program. *Child Psychiatry and Human Development, 21,*
    95-108.

Kliewer, W., Fearnow, M. D., & Walton, M. N. (1998). Dispositional, environmental,
    and context-specific predictors of children's threat perceptions in everyday
    stressful situations. *Journal of Youth & Adolescence, 27* (1), 83-100.

Kliewer, W., & Kung, E. (1998). Family moderators of the relation between hassles and
    behavior problems in inner-city youth. *Journal of Clinical Child Psychology, 27,*
    278-292.

Lanclos, N. F. (2001). Parenting practices as a moderator of exposure to community
    violence. Unpublished doctoral dissertation, Louisiana State University.

Landy, S., (2002). *Pathways to Competence: Encouraging healthy social and emotional
    development in young children.* Baltimore: Brookes Publishing Co.

Lazarus, R. S., & Folkman, S. *Transactional theory and research on emotions and
    coping.* European Journal of Personality, 1(3), 141-169.

Litwin, M. S. (1995). *How to Measure Survey Reliability and Validity*. Los Angeles: UCLA.

Lovejoy, M. C., Weis, R., O'Hare, E., & Rubin, E. C. (1999). Development and initial validation of the Parent Behavior Inventory. *Psychological Assessment, 11,* 534-545.

Manne, S. L., Lesanics, D., Meyers, P., Wollner, N., Steinherz, P., & Redd, W. (1995). Predictors of depressive symptomatology among parents of newly diagnosed children with cancer. *Journal of Pediatric Psychology, 20,* 491-510.

Markson, S. & Fiese, B. H. (2000). Family rituals as a protective factor for children with asthma. *Journal of Pediatric Psychology, 25,* 471-479.

McMahon, R. J. & Forehand, R. L. (2003). *Helping the noncompliant child.* 2nd Ed. New York: Guilford Press.

Mead, M. (1973). Ritual and social Crisis. In J. D. Shaughenessy (Ed.), *The Roots of Ritual* pp. 87-101. Grand Rapids, MI: Erdmans Publishing.

McGrath, M. L., Dorsett, P. G., Calhoun, M. E., & Drabman, R. S. (1987). "Beat-the-Buzzer": A method for decreasing parent-child morning conflicts. *Child & Family Behavior Therapy, 9,* 35-48.

McNeil, C. B., Capage, L. C., & Bennett, G. M. (2002). Cultural issues in the treatment of young African-American children diagnosed with disruptive behavior disorders. *Journal of Pediatric Psychology, 27* (4), 339-350.

Milan, M. A., Mitchell, Z. P., Berger, M. I., & Pierson, D. F. (1981). Positive routines: A rapid alternative to extinction for elimination of bedtime tantrum behavior. *Child Behavior Therapy, 3,* 13-25.

Miltenberger, R. (1997). *Behavior Modification: Principles and Procedures*. Pacific Grove: Brooks/Cole Publishing Company.

Moore, S. F., & Myerhoff, B. G. (1977). *Secular ritual.* Amsterdam: Van Gorcum.

Nelson, J., Erwin, C., & Duffy, R. (1998). *Positive discipline for preschoolers: For their early years – raising children who are responsible, respectful, and resourceful.* Revised 2nd ed., Rocklin, CA: Prima.

Norman, G. R., and D. L. Streiner (1994). *Biostatistics: The bare essentials*. St. Louis, MO: Mosby.

Nunnally, J. C. (1978). Psychometric Theory. New York: McGraw Hill.

Patterson, G. R. (1982). *Coercive family process.* Eugene, OR: Castalia Publishing.

Pelham, W. E., Wheeler, T., & Chronis, A. (1998). Empirically supported psychosocial treatments for attention deficit hyperactivity disorder. *Journal of Clinical Child Psychology, 27* (2), 190-205.

Plaud, J. J., & Newberry, D.E. (1996). Rule-governed and pedophilia. *Sexual abuse: A Journal of Research and Treatment, 8,* 143-159.

Plaud, J. J., & Plaud, D. M. (1998). Clinical behavior therapy and the experimental analysis of behavior. *Journal of Clinical Psychology, 54* (7), 905-921.

Poehlmann, J. A., & Fiese, B. (1994). The effects of divorce, maternal employment, and maternal social support on toddlers' home environments. *Journal of Divorce and Remarriage, 22* (1-2), 121-135.

Pruitt, D. B. (Ed.) (1998). *Your child: What every parent needs to know.* New York: Harper Collins.

Robinson, E. A., Eyberg, S. M. & Ross, A. W. (1980). Standardization of an inventory of child conduct behavior problems. *Journal of Clinical Child Psychology, 9,* 22-29.

Sanders, M. R., & Dadds, M. R. (1982). The effects of planned activities and child management procedures in parent training: An analysis of setting generality. *Behavior Therapy, 13*, 452-461.

Sanders, M. R., Bor, B., & Dadds, M. (1984). Modifying bedtime disruptions in children using stimulus control and contingency management techniques. *Behavioural Psychotherapy, 12,* 130-141.

Schlinger, H., & Blakely, E. (1987). Function-altering effects of contingency-specifying-stimuli. *The Behavior Analyst, 10*, 41-45.

Schrepferman, L., & Snyder, J. (2002). Coercion: the link between treatment mechanisms in behavioral parent training and risk reduction in child antisocial behavior. *Behavior Therapy, 33* (3), 339-359.

Seymour, F. W. (1987). Parent management of sleep difficulties in young children. *Behaviour Change, 4,* 39-48.

Skinner, B. F. (1969). *Contingencies of reinforcement: A theoretical analysis.* New York: Appleton-Century-Crofts.

Spector, P. E. (1992). *Summated Rating Scale Construction: An Introduction.* Beverly Hills: Sage Publications

Streiner,D.L. (1994) Figuring out factors: The use and misuse of factor analysis. *Canadian Journal of Psychiatry, 39*, 135-140.

Sytsma, S. E. & Kelley, M. L. (2002). *Child Routines Questionnaire: Validation in clinical sample*. Manuscript in preparation.

Sytsma, S. E., Kelley, M. L., & Wymer, J. H. (2001). Development and initial validation of the Child Routines Questionnaire. *Journal of Psychopathology and Behavioral Assessment, 23,* 241-251.

Sytsma-Jordan, S. E. (2003). *Further validation of the Child Routines Questionnaire (CRQ): Relationship to parenting practices, maternal distress, and child externalizing behavior.* Unpublished doctoral dissertation, Louisiana State University.

Sytsma-Jordan, S., Kelley, M. L., & Henderson, M. (2002, Nov.). Children's routines, parenting stress, and maternal depression in parent-child dyads referred to a multidisciplinary ADHD clinic and nonreferred controls. A poster presentation at the 36th annual meeting of the Association for Advancement of Behavior Therapy, Reno, NV.

Urcuioli, P. J. (2005). Behavioral and associative effects in differential outcomes in discrimination learning. *Learning & Behavior, 33* (1), 1-21.

Wahler, R. G. & Dumas, J. E. (1986). Maintenance factors in coercive mother-child interactions: The compliance and predictability hypotheses. *Journal of Applied Behavior Analysis, 19*, *13-22.*

Wahler, R. G. & Dumas, J. E. (1987). Family factors in childhood psychology: Toward a coercion-neglect model. In T. Jacob (Ed.) *Family interaction and psychopathology: Theories, methods, and findings,* 581-672. New York: Plenum Press.

Wakschlag, L. S. & Keenan, K. (2001). Clinical significance and correlates of disruptive behavior in environmentally at-risk preschoolers. *Journal of Clinical Child Psychology, 30,* 262-275.

Webster-Stratton, C. & Hammond, M. (1988). Maternal depression and its relationship to life stress, perceptions of child behavior problems, parenting behaviors, and child conduct problems. *Journal of Abnormal Child Psychology, 16,* 299-315.

Wolfe, D. A., Kelly, J. A., & Drabman, R. S. (1981). "Beat the Buzzer": A method for training an abusive mother to decrease recurrent child conflicts. *Journal of Clinical Child Psychology, 10,* 114-116.

Demographic Questionnaire

Location _____		#_____

These forms are for mothers with children between the ages of 1 and 5 years.   If you **do not** provide most of the care for a child between the ages of 1 and 5 years, please **STOP** and tell the experimenter now.

ABOUT YOU AND YOUR FAMILY

Please fill out the following background information about yourself and your family. Read each item carefully.

Your age: _____ years

Race: Marital Status:

_____ White   _____ Never Married
_____ Black   _____ Married
_____ Hispanic   _____ Separated
_____ Asian   _____ Divorced
_____ Native American   _____ Widowed
_____ Pacific Islander
_____ Other

Education: What is the highest level of education completed by:

Yourself	Your Spouse
_____ 6th grade or less	_____ 6th grade or less
_____ Junior high school (7th, 8th, 9th grade)	_____ Junior high school (7th, 8th,9th grade)
_____ Partial high school (10th, 11th grade)	_____ Partial high school (10th,11th grade)
_____ High school graduate	_____ High school graduate
_____ Partial college (at least 1 year) or specialized training	_____ Partial college (at least 1 year) or specialized training
_____ Standard college or university graduate	_____ Standard college or university graduate
_____ Graduate professional degree (Master's, Doctorate)	_____ Graduate professional degree (Master's, Doctorate)

Income: What is the total annual income of your household? (Combine the income of all the people living in your house right now.)

_____ $0 -- $ 4,999	_____ $15,000 -- $24,999	_____ $50,000 -- $74,999
_____ $ 5,000 -- $ 9,999	_____ $25,000 -- $34,999	_____ $75,000 -- $99,999
_____ $10,000 – $14,999	_____ $35,000 -- $49,999	_____ $100,000 and above

Occupation: Please provide your job title or position, NOT the name of your employer. For example, if you are a teacher at Lee High School, please state "high school teacher". If you are retired, please state "retired" as well as your prior occupation. If you do not work outside the home, state "unemployed".

What is your occupation? _____
<div align="center">(please be specific)</div>

What is your spouse's occupation?_____
<div align="center">(please be specific)</div>

Family:
Please list the ages and sex of all those living in your household, including yourself, your spouse, other relatives, and all children.

Relationship to You	**Age**	**Sex**	**Relationship to You**	**Age**	**Sex**
Examples: Daughter	*2*	*F*	*Father--in-law*	*55*	*M*
_____			_____		
_____			_____		
_____			_____		
_____			_____		
_____			_____		
_____			_____		

ABOUT YOU AND YOUR CHILD

THINK OF JUST <u>ONE</u> OF YOUR CHILDREN THAT IS BETWEEN THE AGES OF 1 AND 5 WHILE COMPLETING THE REST OF THE QUESTIONS.

Child's Age _____   What is your child's sex? _____ Girl   _____ Boy
Child's Initials _____

Please circle yes or no next to the type of childcare in which your child is involved. If yes, please indicate number of days per week and hours per day:

Primary caretaker: Y   N   Days per week: _____Hours per day: _____
Babysitter/nanny: Y   N   Days per week: _____Hours per day: _____
Relative: Y   N   Days per week: _____Hours per day: _____
Preschool/daycare: Y   N   Days per week: _____Hours per day: _____
Elementary school: Y   N   Days per week: _____Hours per day: _____
Other: _____   Y   N   Days per week: _____Hours per day: _____

Appendix B
Parent Survey of Child Routines

To the mother:

We are in the process of developing a questionnaire about regular routines children have. We are asking you to help generate items that may be included in this questionnaire. Your help is greatly appreciated.

A <u>ROUTINE</u> consists of things children do regularly in the same way. Most routines are scheduled to occur daily (such as every day after school) or weekly (such as every Sunday morning). Routines may consist of things that occur at the same time each day, in the same place, in the same order, or with the same adult. A routine usually starts when a child is told to begin by an adult.

<u>Ex:</u>   <u>bedtime routine</u>
Time: 8:00 pm   *Adult present:* Mother

     Typical sequence of bedtime routine may include:
     1) take a bath
     2) put on pajamas
     3) brush teeth
     4) parent reads a story
     5) tuck child into bed
     6) kiss goodnight

     <u>Sample items related to this routine:</u>
- My child goes to bed about the same time each night.
- My child is put to bed by the same parent each night.
- My child completes certain activities in the same order before bed each night.
- My child sleeps in his or her own bed each night.

PLEASE LIST ROUTINES CHILDREN AGE 1 TO 5 HAVE DURING EACH OF THE
FOLLOWING TIME PERIODS. THINK ABOUT THE ACTIVITIES CHILDREN
COMPLETE DURING THESE TIMES. LIST ACTIVITIES THAT OCCUR IN AT A
REGULAR TIME, WITH A REGULAR ADULT, OR IN THE SAME ORDER EACH
TIME. PLEASE NOTE IF THE CAREGIVER IS DIFFERENT FOR A PARTICULAR
ROUTINE OR IF YOU HAVE DIFFICULTY WITH YOUR CHILD DURING A
ROUTINE.

MORNING

> *Ex: Child wakes up at the same time each day; Dressing*

1. _____

2. _____

3. _____

4. _____

5. _____

Caregiver: _____

Typical Child Behavior During Routine:_____

_____

MEALTIME

> *Ex: Dinner together as a family at the table; Child has breakfast with Mom each
> day*

1. _____

2. _____

3. _____

4. _____

5. _____

Caregiver:_____

Typical Child Behavior During Routine:_____

_____

AFTERNOON

> Ex: *Child has playtime; Child takes a nap after lunch.*

1. _____

2. _____

3. _____

4. _____

5. _____

Caregiver: _____

Typical Child Behavior During Routine:_____
_____

EVENING

Ex: Family eats dinner together at same time; Child does the same things each night before bed.

1. _____

2. _____

3. _____

4. _____

5. _____

Caregiver: _____

Typical Child Behavior During Routine:_____

LEAVING AND ARRIVING

Ex: Parent informs child when it is time to go; Child hugs Dad each day before he goes to work

1. _____

2. _____

3. _____

4. _____

5. _____

Caregiver: _____

Typical Child Behavior During Routine:_____
_____

WEEKEND

Ex: Child goes to visit Grandma every Saturday; Child goes to the park on Saturday after shopping.

1. _____

2. _____

3. _____

4. _____

5. _____

Caregiver: _____

Typical Child Behavior During Routine:_____

ACTIVITIES WITH FAMILY
   Ex: Child goes shopping with Mom every Wednesday
1. _____

2. _____

3. _____

4. _____

5. _____

Caregiver: _____

Typical Child Behavior During Routine:_____

DISCIPLINE ROUTINES
   Ex: Child goes to time out every time he does not follow parent instructions.
1. _____

2. _____

3. _____

4. _____

5. _____

Caregiver: _____

Typical Child Behavior During Routine:_____

RELIGIOUS ROUTINES
   Ex: Child says prayers before meals; Child attends church every Sunday
1. _____

2. _____

3. _____

4. _____

5. _____

Caregiver: _____

Typical Child Behavior During Routine:_____
_____

HYGIENE ROUTINES
     Ex: Child uses toilet each night before bed; Child washes hands after using toilet

1. _____

2. _____

3. _____

4. _____

5. _____

Caregiver: _____

Typical Child Behavior During Routine:_____
_____

OTHER ROUTINES

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

Caregiver: _____

Typical Child Behavior During Routine:_____
_____

Appendix C
Expert Judgement Questionnaire

Dear _____,

We are currently in the process of developing the preschool version of the Child Routines Questionnaire to address regular routines of children ages 1 to 5 years old. In the present study, a routine is an observable sequence of behaviors a child completes with regularity. Most routines are scheduled to occur daily (e.g., every morning) or weekly (e.g., every Sunday). Routines may consist of events that occur regularly or at the same time, in the same place, in the same order, or with the same adult. A routine usually starts when an adult tells a child to begin.

For example, a typical morning routine may begin at 7 a.m. when the child is woken up by their mother. The child may then brush his teeth, wash his face, dress, and eat breakfast with or without the help of the parent. Of course, many of the children in our sample will require caretaker assistance due to their young age.

Caregivers will rate the items using a Likert-type scale as follows:

How often does it occur at about the same time or in the same way?	How often does the child complete complete the routine?
0 = Never	0 = Never
1 = Rarely	1 = Rarely
2 = Sometimes	2 = Sometimes
3 = Often	3 = Often
4 = Nearly Always	4 = Nearly Always
N/A= Not Applicable to my child	N/A= Not Applicable to my child

In order to evaluate each item, please read each item and:
1. Indicate if the item is clear/understandable and concise/short as possible by circling yes or no.

2. If the item is unclear or too long, please revise the item on the line provided underneath the item. Please revise the item so that they are readable by mothers of all education levels.

3. Indicate if the item is relevant to the domain of the children's daily routines by circling either Yes or No. In other words, do you feel this is a routine children engage in?

4. If there are any duplicated items, please cross off the lease clear item, retaining the most understandable.

5. If there are any additional routines not included in the list, please list them at the end.

Following the revision of these items, a representative sample of mothers with children age 1 to 5 years old will rate the frequency/ s of each item.

Thank you so much for your help in the development in this measure. Please return your revisions by the due date below.

Sincerely,
Molly A. Murphy, M.A.   **DUE DATE:** _____

Expert Judgement Questionnaire

MY CHILD…	CLEAR/ CONCISE?		RELEVANT?	
… wakes up at about the same time on week days.	YES	NO	YES	NO
… has a set routine for getting ready in the morning (e.g., diaper change, brushing teeth, washing face, doing hair, and getting dressed).	YES	NO	YES	NO
… has an early morning activity (e.g., watching TV, playing on the computer, or playing with toys).	YES	NO	YES	NO
… eats breakfast at about the same time and place (e.g., in the kitchen or at school) each morning.	YES	NO	YES	NO
… eats meals with family at the table or in high chair each day.	YES	NO	YES	NO
… eats dinner at about the same time each day.	YES	NO	YES	NO
… eats at least one meal a day with the family.	YES	NO	YES	NO
… receives a snack at the same time and place each day.	YES	NO	YES	NO
… does the same things each night before bed (e.g., brush teeth, read story, say prayers, and kiss parent goodnight).	YES	NO	YES	NO
… calls for a family member when he wakes up.	YES	NO	YES	NO
… has a regular bedtime during the week.	YES	NO	YES	NO
… has a regular bedtime on the weekend.	YES	NO	YES	NO
… naps at the same time and place each day.	YES	NO	YES	NO
… gives kisses and hugs when saying hello or goodbye.	YES	NO	YES	NO
… is informed several minutes before it is time to leave or change activities.	YES	NO	YES	NO
… is prepared for transitions (e.g., "You have five more minutes until clean-up").	YES	NO	YES	NO
… wakes up at about the same time on weekends.	YES	NO	YES	NO
… engages in planned activities with the family on the weekends.	YES	NO	YES	NO
… visits extended family or friends on the weekend regularly.	YES	NO	YES	NO
… takes turns with family members talking about their day.	YES	NO	YES	NO
… spends special time talking with parent (e.g., in the car or before bed) each day.	YES	NO	YES	NO
… helps decide and prepare for family fun or events.	YES	NO	YES	NO
… takes part in "family time" each week when the family does planned	YES	NO	YES	NO

activities together. (e.g., play games, watch movies, go out to eat).					
… receives smaller punishment for minor misbehavior (e.g., not following instructions), and larger punishment for major misbehavior (e.g., fighting).	YES	NO	YES	NO
… is disciplined for misbehavior (e.g., time out, loss of a privilege, or spanking).	YES	NO	YES	NO
… knows what will happen if he/she doesn't follow parent instructions or rules.	YES	NO	YES	NO
… is praised or rewarded for specific good behavior (e.g., "I like the way you put away your toys").	YES	NO	YES	NO
…receives rewards or privileges for specific good behavior (e.g., completing chores).	YES	NO	YES	NO
… has time limits on fun activities (e.g., outside play, TV, video games).	YES	NO	YES	NO
… has household rules such as "No cursing", "No talking while eating", or "No running inside".	YES	NO	YES	NO
… says prayers before meals and/or before bedtime.	YES	NO	YES	NO
… attends church with the family once a week.	YES	NO	YES	NO
… prays with the family at least once a week.	YES	NO	YES	NO
… brushes teeth before bed.	YES	NO	YES	NO
… washes hands before mealtime.	YES	NO	YES	NO
… washes hands after using toilet.	YES	NO	YES	NO
… has scheduled toilet use or diaper changes daily.	YES	NO	YES	NO
… takes or is given a bath/ shower daily.	YES	NO	YES	NO
… picks up dirty clothes after changing.	YES	NO	YES	NO
… cleans up food mess after snack.	YES	NO	YES	NO
… picks up toys and puts them away when done playing.	YES	NO	YES	NO
… straightens bedroom daily.	YES	NO	YES	NO
… helps clean up after meals.	YES	NO	YES	NO
… helps put things away after shopping.	YES	NO	YES	NO
… must finish household responsibilities (e.g., homework or chores)	YES	NO	YES	NO

before play time.				
… helps with chores in some way daily.	YES	NO	YES	NO
… requires my assistance in routines because of his/her age.	YES	NO	YES	NO
… spends time with extended family members (grandparents, aunts, cousins).	YES	NO	YES	NO
… is encouraged to develop fine motor skills daily (e.g., coloring, building blocks).	YES	NO	YES	NO
… is spoken to and/or read to daily to assist language development.	YES	NO	YES	NO
… is encouraged to explore his environment regularly.	YES	NO	YES	NO
… is introduced to novel age-appropriate objects or activities daily.	YES	NO	YES	NO
… engages in an educational activity daily (e.g., counting, naming colors).	YES	NO	YES	NO
… is encouraged to share with his peers or family members daily.	YES	NO	YES	NO
… is only allowed to watch age-appropriate television programs.	YES	NO	YES	NO
… plays with other children his age at least once a week.	YES	NO	YES	NO
… and I attend play groups at least once a week.	YES	NO	YES	NO
… has more than one caretaker on a daily basis (e.g., mother and teacher, mother and father).	YES	NO	YES	NO
… typically does most routines without problem.	YES	NO	YES	NO
… often needs reminders or help to complete a routine.	YES	NO	YES	NO
… typically listens to adults when completing routines.	YES	NO	YES	NO
… typically listens to adults when completing routines.	YES	NO	YES	NO

Other routines for children 1 to 5 not mentioned above? Do you have any other suggestions?

_____

_____

_____

_____

Appendix D
Child Routines Questionnaire: Preschool
(Step 2)

Routines are events that occur at about the same time, in the same order, or in the same way every time. **Please rate how often your child engages in each routine in the last month by circling a rating ranging from 0 (never) to 4 (nearly always)** and **how important it is to you from 0 (not at all) to 4 (very).** If an item does not apply to your child due to his or her age, please mark "0".

My child…	How often does it occur at about the **same time or in the way**? 0 = Never 1 = Rarely 2 = Sometimes 3 = Often 4 = Nearly Always	How **important** Is this to you? 0 = Not At All 1 = A Little Bit 2 = Somewhat 3 = Quite A Bit 4 = Very
1) … wakes up at about the same time each day.	0 1 2 3 4	0 1 2 3 4
2) … eats at least one meal a day with the family.	0 1 2 3 4	0 1 2 3 4
3) … has a set routine before going to bed (For example, brush teeth, put on pajamas, listen to parent read book, and kiss parent goodnight).	0 1 2 3 4	0 1 2 3 4
4) … has a routine for saying hello or goodbye to family (For example, gives kisses and/ or hugs or waves "bye-bye").	0 1 2 3 4	0 1 2 3 4
5) … is rewarded for good behavior when out in public (For example, is allowed to pick a toy or get a sticker).	0 1 2 3 4	0 1 2 3 4
6) … engages in regular, planned activities with the family each week (For example, play games, watch movies, or go out to eat).	0 1 2 3 4	0 1 2 3 4
7) … brushes teeth before bed.	0 1 2 3 4	0 1 2 3 4
8) … eats breakfast at about the same time each morning.	0 1 2 3 4	0 1 2 3 4
9) … says prayers before meals and/or before bedtime.	0 1 2 3 4	0 1 2 3 4
10) … is consistently disciplined for misbehavior (For example, time out or loss of a privilege).	0 1 2 3 4	0 1 2 3 4
11) … eats at the table or in high chair daily.	0 1 2 3 4	0 1 2 3 4
12) … helps with chores in some way daily (For example, puts a toy in the toy box or puts clothes in hamper).	0 1 2 3 4	0 1 2 3 4
13) … washes hands before mealtime.	0 1 2 3 4	0 1 2 3 4
14) … takes or is given a bath daily.	0 1 2 3 4	0 1 2 3 4
15) … is introduced to new objects, toys, or activities regularly.	0 1 2 3 4	0 1 2 3 4

My child…	How often does it occur at about the **same time or in the way**? 0 = Never 1 = Rarely 2 = Sometimes 3 = Often 4 = Nearly Always	How **important** Is this to you? 0 = Not At All 1 = A Little Bit 2 = Somewhat 3 = Quite A Bit 4 = Very
16) … spends individual time talking with a parent each day (For example, in the car or before bed).	0 1 2 3 4	0 1 2 3 4
17) … is given a warning before changing activities (For example, "You have five more minutes until clean-up").	0 1 2 3 4	0 1 2 3 4
18) … eats supper at about the same time each day.	0 1 2 3 4	0 1 2 3 4
19) … has a routine for getting ready in the morning.	0 1 2 3 4	0 1 2 3 4
20) … has a bath routine (For example, singing with parent or playing with toys).	0 1 2 3 4	0 1 2 3 4
21) … has to follow household rules, such as "No hitting" or "No yelling".	0 1 2 3 4	0 1 2 3 4
22) … has a routine when leaving home or a familiar place (For example, wave goodbye and hold hands to the car).	0 1 2 3 4	0 1 2 3 4
23) … is praised or rewarded for good behavior.	0 1 2 3 4	0 1 2 3 4
24) … has a clean-up routine.	0 1 2 3 4	0 1 2 3 4
25) … attends church with the family weekly.	0 1 2 3 4	0 1 2 3 4
26) … has to follow rules when out in public (For example, "Stay close to Mom" or "No whining")	0 1 2 3 4	0 1 2 3 4
27) … plays with other children his age at least once a week	0 1 2 3 4	0 1 2 3 4
28) … engages in an age-appropriate educational activity daily (For example, counting or naming colors).	0 1 2 3 4	0 1 2 3 4
29) … eats a snack at the same time each day.	0 1 2 3 4	0 1 2 3 4
30) … is encouraged to share toys or food with his peers or family members daily.	0 1 2 3 4	0 1 2 3 4
31) … has a regular bedtime each night.	0 1 2 3 4	0 1 2 3 4
32) … is read to daily.	0 1 2 3 4	0 1 2 3 4
33) … eats lunch at about the same time each day.	0 1 2 3 4	0 1 2 3 4

My child…	How often does it occur at about the **same time or in the way**? 0 = Never 1 = Rarely 2 = Sometimes 3 = Often 4 = Nearly Always	How **important** Is this to you? 0 = Not At All 1 = A Little Bit 2 = Somewhat 3 = Quite A Bit 4 = Very
34) … visits extended family or friends regularly.	0 1 2 3 4	0 1 2 3 4
35) … washes hands when they are dirty (For example, after using toilet or playing outside).	0 1 2 3 4	0 1 2 3 4
36) … has a consistent early morning activity at home (For example, watching TV or playing with toys).	0 1 2 3 4	0 1 2 3 4
37) … eats breakfast at about the same time each morning.	0 1 2 3 4	0 1 2 3 4
38) … has to follow set time limits on daily fun activities (For example, outside play or watching TV).	0 1 2 3 4	0 1 2 3 4
39) … naps at about the same time each day.	0 1 2 3 4	0 1 2 3 4
40) … knows what will happen if he/she does not follow parent instructions or rules.	0 1 2 3 4	0 1 2 3 4
41) … eats at a different time than the rest of the family.	0 1 2 3 4	0 1 2 3 4
42) … is provided with activities or toys when out in public (For example, playing a game at the grocery with caregiver or given toys or colors at a restaurant).	0 1 2 3 4	0 1 2 3 4

Item Means, Standard Deviations, and Item-Total Correlation Prior to PCA

Items	Item Mean	Standard Deviation	Item-Total Correlation
1) My child wakes at the same time each day.	3.42	0.70	.45
2) My child eats at least one meal with the family.	3.49	0.82	.49
3) My child has a set routine before going to bed (For example, brush teeth, put on pajamas, and kiss parent goodnight).	3.38	0.93	.57
4) My child has a routine for saying hello or goodbye to family (For example, gives kisses and/ or hugs or waves "bye-bye").	3.42	0.84	.49
5) My child is rewarded for good behavior when out in public (For example, is allowed to pick a toy or get a sticker).	2.66	1.04	.38
6) My child engages in regular, planned activities with the family each week (For example, play games, watch movies, or go out to eat).	3.10	0.94	.54
7) My child brushes teeth before bed.	3.21	1.09	.53
8) My child eats breakfast at about the same time each morning.	3.32	0.88	.49

9) My child says prayers before meals and/or before bedtime. 2.57 1.39 .38

10) My child is consistently disciplined for misbehavior 3.12 1.07 .49

(For example, time out or loss of a privilege).

11) My child eats at the table or in high chair daily. 3.35 1.07 .36

12) My child helps with chores in some way daily 2.76 1.26 .56

(For example, puts a toy in the toy box or puts clothes in hamper).

13) My child washes hands before mealtime. 2.85 1.15 .52

14) My child takes or is given a bath daily. 3.82 0.49 .20

15) My child is introduced to new objects, toys, or activities regularly. 3.26 0.77 .32

16) My child spends individual time talking with a parent each day 3.61 0.85 .46

(For example, in the car or before bed).

17) My child is given a warning before changing activities 2.63 1.24 .50

(For example, "You have five more minutes until clean-up").

18) My child eats supper at about the same time each day. 3.24 0.83 .45

19) My child has a routine for getting ready in the morning. 3.27 0.96 .61

20) My child has a bath routine (For example, singing with parent or playing with toys). 3.21 0.98 .44

21) My child has to follow household rules, such as "No, hitting" or "No yelling".	3.43	0.97	.53
22) My child has a routine when leaving home or a familiar place (For example, wave goodbye and hold hands to the car).	3.18	1.00	.48
23) My child is praised or rewarded for good behavior.	3.53	0.78	.59
24) My child has a clean-up routine.	2.45	1.17	.64
25) My child attends church with the family weekly.	2.48	1.46	.28
26) My child has to follow rules when out in public (For example, "Stay close to Mom" or "No whining")	3.39	0.99	.47
27) My child plays with other children his age at least once a week.	3.61	0.82	.40
28) My child engages in an age-appropriate educational activity daily (For example, counting or naming colors).	3.57	0.82	.50
29) My child eats a snack at the same time each day.	2.98	1.04	.47
30) My child is encouraged to share toys or food with his peers or family members daily.	3.58	0.75	.55
31) My child has a regular bedtime each night.	3.34	0.83	.46
32) My child is read to daily.	3.19	0.92	.45
33) My child eats lunch at about the same time each day.	3.55	0.69	.52

34) My child visits extended family or friends regularly   3.31   0.79   .14

35) My child washes hands when they are dirty   3.52   0.83   .49

(For example, after using toilet or playing outside).

36) My child has a consistent early morning activity at home   3.11   1.05   .45

(For example, watching TV or playing with toys).

37) My child eats breakfast at about the same time each morning.   3.32   0.87   .45

38) My child has to follow set time limits on daily fun activities   2.38   1.28   .50

(For example, outside play or watching TV).

39) My child naps at about the same time each day.   2.70   1.30   .20

40) My child knows what will happen if he/she does not follow parent instructions   3.19   1.08   .51

or rules.

41) My child eats at a different time than the rest of the family.   1.22   1.04   -.32

42) My child is provided with activities or toys when out in public   2.77   1.08   .30

(For example, playing a game at the grocery with caregiver or given toys or colors at a restaurant).

PCA: Orthogonal Varimax Factor Loadings of Five Factors

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
40) My child knows what will happen if he/she does not follow parent instructions or rules.	**.74**	.11	-.01	.05	.11
26) My child has to follow rules when out in public (For example, "Stay close to Mom" or "No whining")	**.71**	.08	.19	.08	.11
10) My child is consistently disciplined for misbehavior (For example, time out or loss of a privilege).	**.67**	.14	.10	.10	-.03
21) My child has to follow household rules, such as "No, hitting".	**.66**	.07	.18	.14	.01
17) My child is given a warning before changing activities (For example, "You have five more minutes until clean-up").	**.65**	.11	.06	.05	.01
24) My child has a clean-up routine.	**.65**	.07	.20	.15	.31
12) My child helps with chores in some way daily (For example,	**.61**	.09	.15	.15	.23

puts a toy in the toy box or puts clothes in hamper).

16) My child spends individual time talking with a parent each day (For example, in the car or before bed).	**.50**	.03	.26	.23	-.01
37) My child eats breakfast at about the same time each morning.	.07	**.78**	-.04	.17	.12
33) My child eats lunch at about the same time each day.	.14	**.69**	.16	.20	.04
29) My child eats a snack at the same time each day.	.26	**.60**	.09	.09	.04
18) My child eats supper at about the same time each day.	.04	**.57**	.36	.02	.09
31) My child has a regular bedtime each night.	.14	**.52**	.07	.35	.02
19) My child has a routine for getting ready in the morning.	.30	**.51**	.08	.36	.19
39) My child naps at about the same time each day.	-.08	**.49**	.08	.02	.05
2) My child eats at least one meal with the family.	.15	**.45**	.33	.06	.23
22) My child has a routine when leaving home or a familiar place (For example, wave goodbye and hold hands to the car).	.25	.12	**.71**	.06	-.08
23) My child is praised or rewarded for good behavior.	.38	.11	**.61**	.14	.06
4) My child has a routine for saying hello or goodbye to family (For example, gives kisses and/ or hugs or waves "bye-bye").	.02	.15	**.60**	.26	.20

91

Item					
20) My child has a bath routine (For example, singing with parent or playing with toys).	-.07	.26	**.53**	.25	.10
36) My child has a consistent early morning activity at home (For example, watching TV or playing with toys).	.15	.37	**.50**	-.01	.02
42) My child is provided with activities or toys when out in public (For example, playing a game at the grocery with caregiver or given toys or colors at a restaurant).	.17	.01	**.50**	.07	-.08
6) My child engages in regular, planned activities with the family each week (For example, play games, watch movies, or go out to eat).	.17	.19	**.47**	.21	.27
5) My child is rewarded for good behavior when out in public (For example, is allowed to pick a toy or get a sticker).	.30	-.07	**.46**	-.12	.21
32) My child is read to daily.	.18	.02	.08	**.70**	.25
28) My child engages in an age-appropriate educational activity daily (For example, counting or naming colors).	.28	.15	.08	**.64**	.03
3) My child has a set routine before going to bed (For example, brush teeth, put on pajamas, listen to parent read book, and kiss	.14	.19	.28	**.58**	.27

parent goodnight).

11) My child eats at the table or in high chair daily.	.05	.34	.03	**.49**	.03
30) My child is encouraged to share toys or food with his peers or family members daily.	.32	.28	.29	**.44**	-.13
15) My child is introduced to new objects, toys, or activities regularly.	-.05	.21	.38	**.44**	-.14
9) My child says prayers before meals and/or before bedtime.	.16	.09	-.01	.09	**.77**
25) My child attends church with the family weekly.	.03	.16	-.04	-.04	**.70**
13) My child washes hands before mealtime.	.24	.07	.19	.26	**.55**
7) My child brushes teeth before bed.	.32	-.01	.24	.32	**.46**
38) My child has to follow set time limits on daily fun activities (For example, outside play or watching TV).	.37	.33	.07	-.01	**.43**

Appendix G
Child Routines Questionnaire: Preschool
(Step 3)

Routines are events that occur at about the same time, in the same order, or in the same way every time. **Please rate how often your child engages in each routine in the last month by circling a rating ranging from 0 (never) to 4 (nearly always)**. If an item does not apply to your child due to his or her age, please mark "0".

My child…	How often does it occur at about the **same time or in the way**? 0 = Never 1 = Rarely 2 = Sometimes 3 = Often 4 = Nearly Always
1) … has to follow set time limits on daily fun activities (For example, outside play or watching TV).	0 1 2 3 4
2) … eats at least one meal a day with the family.	0 1 2 3 4
3) … … has a set routine before going to bed (For example, brush teeth, put on pajamas, listen to parent read book, and kiss parent goodnight).	0 1 2 3 4
4) … has a routine for saying hello or goodbye to family (For example, gives kisses and/ or hugs or waves "bye-bye").	0 1 2 3 4
5) … is rewarded for good behavior when out in public (For example, is allowed to pick a toy or get a sticker).	0 1 2 3 4
6) … brushes teeth before bed.	0 1 2 3 4
7) … engages in regular, planned activities with the family each week (For example, play games, watch movies, or go out to eat).	0 1 2 3 4
8) … says prayers before meals and/or before bedtime.	0 1 2 3 4
9) … eats at the table or in high chair daily.	0 1 2 3 4
10) … helps with chores in some way daily (For example, puts a toy in the toy box or puts clothes in hamper).	0 1 2 3 4
11) … is consistently disciplined for misbehavior (For example, time out or loss of a privilege).	0 1 2 3 4
12) … is provided with activities or toys when out in public (For example, playing a game at the grocery with caregiver or given toys or colors at a restaurant).	0 1 2 3 4
13) … is introduced to new objects, toys, or activities regularly.	0 1 2 3 4
14) … spends individual time talking with a parent each day (For example, in the car or before bed).	0 1 2 3 4

My child…	How often does it occur at about the **same time or in the way**? 0 = Never 1 = Rarely 2 = Sometimes 3 = Often 4 = Nearly Always
15) … eats supper at about the same time each day.	0 1 2 3 4
16) … has a routine for getting ready in the morning.	0 1 2 3 4
17) … has a bath routine (For example, singing with parent or playing with toys).	0 1 2 3 4
18) … has to follow household rules, such as "No hitting" or "No yelling".	0 1 2 3 4
19) … has a routine when leaving home or a familiar place (For example, wave goodbye and hold hands to the car).	0 1 2 3 4
20) … is praised or rewarded for good behavior.	0 1 2 3 4
21) … has a clean-up routine.	0 1 2 3 4
22) … attends church with the family weekly.	0 1 2 3 4
23) … has to follow rules when out in public (For example, "Stay close to Mom" or "No whining")	0 1 2 3 4
24) … washes hands before mealtime.	0 1 2 3 4
25) … engages in an age-appropriate educational activity daily (For example, counting or naming colors).	0 1 2 3 4
26) … eats a snack at the same time each day.	0 1 2 3 4
27) … is encouraged to share toys or food with his peers or family members daily.	0 1 2 3 4
28) … has a regular bedtime each night.	0 1 2 3 4
29) … is read to daily.	0 1 2 3 4
30) … eats lunch at about the same time each day.	0 1 2 3 4
31) … knows what will happen if he/she does not follow parent instructions or rules.	0 1 2 3 4
32) … naps at about the same time each day.	0 1 2 3 4
33) … has a consistent early morning activity at home (For example, watching TV or playing with toys).	0 1 2 3 4
34) … eats breakfast at about the same time each morning.	0 1 2 3 4
35) … is given a warning before changing activities (For example, "You have five more minutes until clean-up").	0 1 2 3 4

Family Routines Inventory

Below is a list of routines common to many families. After each item there are two rating scales. The first asks "Is this a routine in your family?" You are to circle the rating indicating how often this routine occurs in your family ranging from 0 (almost never) to 3 (always). Then you are to answer "How important is this routine for keeping your family strong?" using a rating from 0 (not at all important) to 2 (very important).

	Is this a routine in your family? 3 = Always – every day 2 = 3-5 times per week 1 = 1-2 times per week 0 = Almost never	How important is this routine for keeping your family strong? 2 = Very Important 1 = Somewhat Important 0 = Not at All Important
1. Parent(s) have some time each day for just talking with their children.	0 1 2 3	0 1 2
2. Parent(s) have certain things they do every morning while getting ready to start the day.	0 1 2 3	0 1 2
3. Working parent has a regular play time with the children after coming home from work.	0 1 2 3	0 1 2
4. Working parent takes care of the children some time almost every day.	0 1 2 3	0 1 2
5. Children do the same things each morning as soon as they wake up.	0 1 2 3	0 1 2
6. Parent(s) and children play together some time each day.	0 1 2 3	0 1 2
7. Non-working parent and children do something together outside the home almost every day (e.g., shopping, walking, etc.)	0 1 2 3	0 1 2
8. Family has a "quiet time" each evening when everyone talks or plays quietly.	0 1 2 3	0 1 2
9. Family goes some place special together each week.	0 1 2 3	0 1 2
10. Family has a certain "family time" each week when they do things together at home.	0 1 2 3	0 1 2
11. Parent(s) read or tell stories to the children almost every day.	0 1 2 3	0 1 2
12. Each child has some time each day for playing alone.	0 1 2 3	0 1 2
13. Children take part in regular activities after school.	0 1 2 3	0 1 2
14. Young children go to play-school the same days each week.	0 1 2 3	0 1 2
15. Children do their homework at the same time each day or night during the week.	0 1 2 3	0 1 2
16. Parents have a certain hobby or sport they do together regularly.	0 1 2 3	0 1 2
17. Children have special things they do or ask for each night at bedtime (e.g., a story, a good-night kiss, a drink of water).	0 1 2 3	0 1 2
18. Children go to bed at the same time almost every night.	0 1 2 3	0 1 2

	Is this a routine in your family? 3 = Always – every day 2 = 3-5 times per week 1 = 1-2 times per week 0 = Almost never	How important is this routine for keeping your family strong? 2 = Very Important 1 = Somewhat Important 0 = Not at All Important
19. Family eats at the same time each night.	0 1 2 3	0 1 2
20. At least some of the family eats breakfast together almost every morning.	0 1 2 3	0 1 2
21. Whole family eats dinner together almost every night.	0 1 2 3	0 1 2
22. At least one parent talks to his or her parents regularly.	0 1 2 3	0 1 2
23. Family regularly visits with the relatives	0 1 2 3	0 1 2
24. Family checks in or out with each other when someone leaves or comes home.	0 1 2 3	0 1 2
25. Working parent(s) comes home from work at the same time each day.	0 1 2 3	0 1 2
26. Family has certain things they almost always do to greet the working parent(s) at the end of the day.	0 1 2 3	0 1 2
27. Family has certain things they almost always do each time the children get out of line.	0 1 2 3	0 1 2
28. Children do regular household chores.	0 1 2 3	0 1 2

Appendix I
Parent Behavior Inventory

Please circle the number that best describes your interactions with your child.	Never				Always	
1) I lose my temper when my child doesn't do something I ask him/her to do.	0	1	2	3	4	5
2) I have pleasant conversations with my child.	0	1	2	3	4	5
3) I grab or handle my child roughly.	0	1	2	3	4	5
4) I try to teach my child new things.	0	1	2	3	4	5
5) I demand that my child does something (or stops doing something) right away.	0	1	2	3	4	5
6) My child and I hug and /or kiss each other.	0	1	2	3	4	5
7) I complain about my child's behavior or tell him I don't like what s/he is doing.	0	1	2	3	4	5
8) I laugh with my child about things we find funny.	0	1	2	3	4	5
9) When my child misbehaves, I let him know what will happen if s/he doesn't behave.	0	1	2	3	4	5
10) My child and I spend time playing games, doing crafts, or doing other activities together.	0	1	2	3	4	5
11) I listen to my child's feelings and try to understand them.	0	1	2	3	4	5
12) I thank or praise my child.	0	1	2	3	4	5
13) I spank or use physical punishment with my child.	0	1	2	3	4	5
14) I offer to help, or help my child with things s/he is doing.	0	1	2	3	4	5
15) I threaten my child.	0	1	2	3	4	5
16) I comfort my child when s/he seems scared, upset, or unsure.	0	1	2	3	4	5
17) I say mean things to my child that could make him/her feel bad.	0	1	2	3	4	5
18) I hold or touch my child in an affectionate way.	0	1	2	3	4	5
19) When I'm disappointed in my child's behavior, I remind him/her about how much I've done for him/her.	0	1	2	3	4	5
20) When my child asks for help or attention, I ignore him/her or make him/her wait until later.	0	1	2	3	4	5

Item Means, Standard Deviations, and Item-Total Correlations (Step 3)

Items	Item Mean	Standard Deviation	Item-Total Correlation
Factor 1			
10) My child helps with chores in some way daily (For example,	2.66	1.28	.43
puts a toy in the toy box or puts clothes in hamper).			
11) My child is consistently disciplined for misbehavior	3.02	1.04	.50
(For example, time out or loss of a privilege).			
14) My child spends individual time talking with a parent each day	3.63	0.78	.48
(For example, in the car or before bed).			
18) My child has to follow household rules, such as "No hitting" or "No yelling".	3.44	0.84	.55
21) My child has a clean-up routine.	2.50	1.24	.45
23) My child has to follow rules when out in public	3.34	0.98	.46
(For example, "Stay close to Mom" or "No whining").			
31) My child knows what will happen if he/she does not follow parent instructions	3.13	1.05	.58

or rules.

35) My child is given a warning before changing activities	2.44	1.32	.53

(For example, "You have five more minutes until clean-up").

Factor 2

2) My child eats at least one meal a day with the family.	3.52	0.80	.39
15) My child eats supper at about the same time each day.	3.34	0.76	.42
16) My child has a routine for getting ready in the morning.	3.31	0.92	.47
26) My child eats a snack at the same time each day.	2.82	1.13	.49
28) My child has a regular bedtime each night.	3.27	0.97	.57
30) My child eats lunch at about the same time each day.	3.38	0.86	.51
32) My child naps at about the same time each day.	2.85	1.24	.33
34) My child eats breakfast at about the same time each morning.	3.41	0.87	.56

Factor 3

4) My child has a routine for saying hello or goodbye to family	3.65	0.76	.44

(For example, gives kisses and/ or hugs   or waves "bye-bye").

5) My child is rewarded for good behavior when out in public	2.66	1.13	.17

(For example, is allowed to pick a toy or get a sticker).

7) My child engages in regular, planned activities with the family each week   3.12   0.97   .43

(For example, play games, watch movies, or go out to eat).

12) My child is provided with activities or toys when out in public   2.90   1.07   .32

(For example, playing a game at the grocery with caregiver or given toys or colors at a restaurant).

17) My child has a bath routine (For example, singing with parent or playing with toys).   3.35   0.89   .52

19) My child has a routine when leaving home or a familiar place   3.30   0.90   .39

(For example, wave goodbye and hold hands to the car).

20) My child is praised or rewarded for good behavior.   3.58   0.59   .32

33) My child has a consistent early morning activity at home   3.23   1.04   .33

(For example, watching TV or playing with toys).

Factor 4

3) My child has a set routine before going to bed (For example, brush teeth,   3.45   0.90   .51

put on pajamas, listen to parent read book, and kiss parent goodnight).

9) My child eats at the table or in high chair daily.   3.33   1.12   .25

13) My child is introduced to new objects, toys, or activities regularly   3.09   0.85   .30

25) My child engages in an age-appropriate educational activity daily	3.50	0.76	.54
(For example, counting or naming colors).			
27) My child is encouraged to share toys or food with his peers or family members daily.	3.39	0.86	.52
29) My child is read to daily.	3.03	0.97	.46

Factor 5

1) My child has to follow set time limits on daily fun activities	2.15	1.26	.45
(For example, outside play or watching TV).			
6) My child brushes teeth before bed.	3.10	1.17	.47
8) My child says prayers before meals and/or before bedtime.	2.65	1.43	.36
22) My child attends church with the family weekly.	2.58	1.42	.06
24) My child washes hands before mealtime.	2.79	1.17	.40

Items	Correlation Coefficient

Factor 1

10) My child helps with chores in some way daily (For example, puts a toy in the toy box or puts clothes in hamper).	.62**
11) My child is consistently disciplined for misbehavior (For example, time out or loss of a privilege).	.64**
14) My child spends individual time talking with a parent each day (For example, in the car or before bed).	.45**
18) My child has to follow household rules, such as "No hitting" or "No yelling".	.41**
21) My child has a clean-up routine.	.40**
23) My child has to follow rules when out in public (For example, "Stay close to Mom" or "No whining").	.16
31) My child knows what will happen if he/she does not follow parent instructions or rules.	.23
35) My child is given a warning before changing activities (For example, "You have five more minutes until clean-up").	.49**

Factor 2

2) My child eats at least one meal a day with the family.   .78**

15) My child eats supper at about the same time each day.   .72**

16) My child has a routine for getting ready in the morning.   .45**

26) My child eats a snack at the same time each day.   .54**

28) My child has a regular bedtime each night.   .32*

30) My child eats lunch at about the same time each day.   .67**

32) My child naps at about the same time each day.   .56**

34) My child eats breakfast at about the same time each morning.   .69**

Factor 3

4) My child has a routine for saying hello or goodbye to family (For example, gives kisses and/ or hugs   .50**

or waves "bye-bye").

5) My child is rewarded for good behavior when out in public (For example, is allowed to pick a toy or   .29**

get a sticker).

7) My child engages in regular, planned activities with the family each week (For example, play games,   .33*

watch movies, or go out to eat).

12) My child is provided with activities or toys when out in public (For example, playing a game .29*

at the grocery with caregiver or given toys or colors at a restaurant).

17) My child has a bath routine (For example, singing with parent or playing with toys). .38**

19) My child has a routine when leaving home or a familiar place (For example, wave goodbye and .51**

hold hands to the car).

20) My child is praised or rewarded for good behavior. .34*

33) My child has a consistent early morning activity at home (For example, watching TV or playing with toys). .52**

Factor 4

3) My child has a set routine before going to bed (For example, brush teeth, put on pajamas, listen to parent .55**

read book, and kiss parent goodnight).

9) My child eats at the table or in high chair daily. .65**

13) My child is introduced to new objects, toys, or activities regularly .53**

25) My child engages in an age-appropriate educational activity daily (For example, counting or naming colors). .47**

27) My child is encouraged to share toys or food with his peers or family members daily. .34*

29) My child is read to daily. .52**

Factor 5

1) My child has to follow set time limits on daily fun activities For example, outside play or watching TV).   .43**

6) My child brushes teeth before bed.   .62**

8) My child says prayers before meals and/or before bedtime.   .89**

22) My child attends church with the family weekly.   .79**

24) My child washes hands before mealtime.   .53**

_____

Note: *p < .05 level, **p < .01 level.

Subscales	CRQ: P Discipline	CRQ: P Daily Living	CRQ: P Activities/ Positive Attention	CRQ: P Educational/ Social	CRQ: P Religious/ Hygiene	CRQ: P Total Routines
FRI: Endorsement/Adherence	.39**	.55**	.44**	.46**	.45**	.61**
FRI Importance	.32**	.45**	.34**	.37**	.33**	.48**
PBI: Supportive/Engaged	.35**	.46**	.51**	.59**	.25**	.57**
PBI: Hostile/ Coercive	.21*	-----	-.19*	-----	----	----
ECBI: Total Intensity	-----	-.19*	-.29**	-.30**	-.19*	-.26**
ECBI: Total Problem	-----	-.20**	-.33**	-.34**	-.19*	-.29**
PSI: SF: Difficult Child	-15*	-.18*	-.39**	-.32**	-----	-.30**
PSI: SF: Parental Distress	-----	-----	-.24**	-.25**	-.20**	-.23**
PSI: SF: Parent-Child Interaction	-----	-.25**	-.42**	-.36**	-----	-.30**
PSI: SF Total Stress	.15*	-.20**	-.40**	-.35**	-.16*	-.32**
BSI 18: Depression	----	-.18*	-.28**	-.18*	----	-.24**

BSI 18: Somatization	-.18*	-.25**	-.31**	-.29**	-.19*	-.32**
BSI 18: Anxiety	----	-.18*	-.25**	-.16*	----	-.20**
BSI 18: Global Severity	-----	-.23**	-.32**	-.24**	-.17**	-.29**

Note: *p < .05 level, **p < .01 level.

Vita

Molly Murphy Wittig was born and raised in Metairie, Louisiana. She attended Louisiana State University where she had the opportunity to study abroad at the Universite de Haute-Bretagne in Rennes, France, and State University of New York at Stony Brook. Molly received her Bachelor of Arts in Liberal Arts degree, with a focus in studio art and French, in December 1997, from Louisiana State University. In August 1999, she began her doctoral training in clinical psychology at Louisiana State University under the supervision of David Reitman, Ph.D. and Mary Lou Kelley, Ph.D. She received her Master of Arts in clinical psychology in December 2001. She completed her pre-doctoral internship at Louisiana State University Health Sciences Center in New Orleans, Louisiana. She will complete her Doctor of Philosophy in clinical psychology, with a subspecialty in child, in December 2005. Following completion of her degree, she plans to accept a clinical position in Charlotte, North Carolina, where she and her husband will reside. Her primary research and clinical interests are in the areas of parenting, child routines, child behavior problems, exposure to violence, and early development.