MEASURING MINDFUL PARENTING THROUGH SYSTEMATIC OBSERVATION: THE DEVELOPMENT AND PSYCHOMETRIC TESTING OF THE MINDFUL PARENTING OBSERVATIONAL SCALES (MPOS)

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by
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ABSTRACT

Gaps exist in current approaches to measurement within the developing field of mindfulness in parenting. To date, there exists just a single instrument explicitly designed to assess mindful parenting which is self-report in nature. The present study is the first to attempt to measure the construct of mindful parenting through behavioral observation; as such, its primary goal is to describe and test the inter-rater reliability and validity of the Mindful Parenting Observational Scales (MPOS). This study analyzed DVD-recorded interaction data from 50 mother-youth pairs in Pennsylvania and Iowa who were selected from the top and bottom tails of a larger distribution (N=979) of self-reported interpersonal mindfulness in parenting. Percentage agreements and intraclass correlation coefficients (ICCs) were used to calculate inter-rater reliability, and hierarchical regression analyses were used to examine the unique contribution of the MPOS to explaining youth outcome variance. Reliability analyses indicated that the two observers involved in this study scored within one scale point of each other at least 90% of the time on 15 of 18 MPOS rating scales, and that ICCs for all scales ranged from .53-.99. Tests of incremental validity demonstrated that the MPOS was associated with variance in youth outcomes above and beyond that explained by a standard observational measure of parenting and a self-report measure of mindful parenting. Specifically, mothers rated higher in mindful parenting had youth with better peer pressure resistance skills, fewer externalizing problems, and a lower rate of initiating use of a variety of illicit substances. Higher mindful parenting was inversely related to internalizing symptoms, so that mothers who demonstrated behavior reflective of mindful parenting had youth who reported more depression and anxiety symptoms. Thus the present study provides preliminary evidence for the utility of the MPOS as a reliable and valid observational instrument of mindfulness in parenting.
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Introduction

A large theoretical and empirical literature attests to the influence that parenting and family environment exert on the course of youth development throughout childhood and adolescence (Cowan & Cowan, 2002; Laursen & Collins, 2009; Masten & Coatsworth, 1998). Across studies, child management strategies (Hill, Hawkins, Catalano, Abbott, & Guo, 2005), the quality of communication between parents and youth (Huebner & Howell, 2003; Laursen & Collins, 2004), and the emotional tenor of the parent-youth relationship (Brody & Ge, 2001) have emerged as important factors which promote youth competence and protect against risk.

Our understanding of the association between parenting factors and youth outcomes may be advanced through the lens of recent theoretical and empirical developments in the field of mindfulness science (Baer, 2003; Coatsworth, Duncan, Greenberg, & Nix, 2010; Duncan, Coatsworth, & Greenberg, 2009a; Kabat-Zinn, 1997).

The medical, educational, and psychological literature from the late 1990s-onwards reflects a growing interest in applications of mindfulness to basic research and practice (Williams & Kabat-Zinn, 2011). Within the behavioral sciences, researchers interested in parenting have started to investigate how insights from mindfulness studies may inform our understanding of developmental processes and clinical practice or intervention. Although this new area centered on mindfulness in parenting has been growing rapidly, gaps exist in current approaches to measurement. To date, there exists just a single self-report instrument explicitly designed to assess mindful parenting. The primary goal of the present research is to address this gap by introducing and testing a new measure of mindfulness within the parenting context that is observational in nature. The proposed measure, the Mindful Parenting Observational Scales (MPOS; Geier, Coatsworth, Turksma & Greenberg, 2012), is a first attempt at advancing the field towards multi-method assessment of the mindful parenting construct.
Adolescent Development in the Context of Parent-Youth Interactions

Researchers are increasingly adopting transactional and bidirectional models which recognize that both parents and youth are agentic partners in a relationship, each influencing the behaviors and developmental trajectory of the other (Collins, 2002; Fanti, Henrich, Brookmeyer, Kuperminc, 2008; Reis, Collins, & Berscheid, 2000; Sameroff, 1975). Key developmental tasks of adolescence, such as identity formation, autonomy, and ego development, are profoundly shaped by the behavioral interactions and exchanges between parents and youth which, over time, become an outward manifestation of the latent quality of their relationship (Laursen & Collins, 2009). It is through relationship that parents and youth work out their interdependence to maintain closeness during a time in which youth feel an increased need for time away from their parents, whether it be with peers or alone.

Key aspects of the parent-youth relationship that shape youth development and thus merit study include 1) specific parenting behaviors, or “practices;” 2) the emotional context within which these behaviors occur; and, 3) the patterns of interaction between parents and youth. Regarding the first two, the emotional climate of the relationship may be the most important because it imparts a deeper level of meaning to how behaviors are interpreted by the youth, and consequently, to how these behaviors shape the developmental course of the relationship between parents and youth (Baumrind, 1991; Darling & Steinberg, 1993; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Laursen & Collins, 2009; Maccoby & Martin, 1983; Steinberg, 2001). Furthermore, interactional patterns between parents and youth merit study because they present a key medium through which parents socialize youth (Dix & Branca, 2003; Maccoby, 2007). Together, the transactional nature of relationship quality, importance of the affective context surrounding parenting behaviors, and the developmental functions of the parent-youth
relationship call for research approaches that focus explicitly on parent-youth interactional dynamics and interpersonal influences on development.

**Applying Mindfulness to Parenting**

Despite bidirectional processes of influence, the role of the parent remains influential in shaping the quality and trajectory of parent-youth relationships and subsequent individual outcomes (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Dix & Branca, 2003; Maccoby, 2007). Concepts from mindfulness science may contribute to our current understanding of interactional patterns by providing a useful lens through which to examine how parents’ approach during interactions with youth impacts youth development.

Mindfulness as featured today in the clinical, psychological, and health promotion literature originates in Eastern Buddhist meditative practice (Goldstein, 2002), although its contemporary applications in research and practice are largely secularized. A widely accepted definition of the construct describes it as “the awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003, p. 145). Mindfulness also emphasizes a caring and compassionate stance—a desire to relieve suffering—towards self and others (Duncan, Coatsworth, & Greenberg, 2009b). Notably, mindfulness has been conceptualized as both a state of being brought about by specific practices, as well as a dispositional tendency or capacity inherent to all individuals (Baer, Smith, & Allen, 2004; Brown & Ryan, 2003; Grossman & Van Dam, 2011).

Mindfulness is built on the notion that what one is thinking and feeling is not permanent and will likely pass (Kabat-Zinn, 2003). Thus, cultivating a mindful stance involves bringing awareness with low levels of judgment to what is presently happening internally and in the
surrounding environment, as well as to the emotions, thoughts, attitudes, and consequent attributions one attaches to this experience (Goldstein, 2002). Doing so allows individuals to respond to experience in a way that accords with their personal values and goals. Human behavior often results from automatic, unconscious evaluations of experience as “good” or “bad” that are conditioned by individual life histories and expectations (Dumas, 2005; Duncan et al., 2009a). A central goal of mindfulness is to become more aware of how one’s thoughts and feelings may influence behavior. This awareness, in turn, can aid in lowering levels of behavioral reactivity which may have otherwise led one to act in a way counter to their personal goals and values. Importantly, mindfulness is not necessarily about changing thoughts and feelings themselves—it is about changing the automatic judgments and behavioral reactivity that often accompany them. Ultimately, mindfulness allows for “exercising choice in responding to experience and provides an alternative to engaging in habitual or ‘automatic,’ cognitive and behavioral reactions to internal and external experience” (Duncan et al., 2009a, pg 256).

Empirical studies have found that increased capacity for mindfulness relates to improvements in the domains of emotion regulation (Creswell, Way, Eisenberger, & Lieberman, 2007), anxiety and depression (Brown & Ryan, 2003) and relationship satisfaction (Barnes, Warren Brown, Krusemark, Campbell, & Rogge, 2007).

Along with leading to greater intra-individual well-being, mindfulness may also provide an effective means of improving the quality of interpersonal experience. The parenting relationship is one context in which extensions of mindfulness to the interpersonal realm are particularly appropriate and likely to affect meaningful, positive, and enduring change. For one, being present-centered and aware during interactions with youth may aid parents in accurately interpreting youth speech and behavior and in discerning youth needs (Duncan et al., 2009a). As
such, mindfulness skills may help parents to remain youth- or relationship-oriented instead of self-oriented in interactions with their youth, an essential factor to the quality of parent-youth relationships (Dix & Branca, 2003). Additionally, attending to one’s own internal experience and consequent judgments and attributions about youth behavior can help parents halt the types of automatic reactions that may lead to more maladaptive patterns of interaction (e.g. harshness, power assertion, and coercive cycles). Instead, parents may choose to respond to their youth in a way that is consistent with their own parenting goals and values, and that maintains closeness and openness. The processes described above may contribute to increased warmth and closeness between parents and youth, and may lead to more satisfying relationships and a more positive family environment (Duncan et al., 2009a).

Mindfulness applied to the interpersonal context may be especially salient and relevant for parenting during the developmental transition to adolescence as youth undergo rapid biological, social, and cognitive change. Despite documented stability in how parents and youth relate to each other, research also suggests that this period is a time of increased conflict and negative affect in interpersonal exchanges, and decreases in perceptions of closeness (Laursen & Collins, 2009). Consequently, a key question for basic research involves how qualities of mindfulness in parenting behavior and style may relate to and enhance overall parent-youth relationship quality and subsequent youth outcomes. It is possible that the capacities fostered by mindfulness described above may help parents to maintain closeness with their youth as roles are renegotiated and the youth work towards establishing autonomy. The potential that mindfulness holds for improving relationship quality and overall environment within the family is increasingly attested to by the growing body of applied research in mindful parenting. A number of different research groups have developed and tested the efficacy of mindfulness-based
parenting prevention and intervention programs with promising results (Altmaier & Maloney, 2007; Dawe & Harnett, 2007; Duncan et al., 2009b; Saltzman & Goldin, 2008; Singh et al., 2006, 2007; Van der Oord, Bogels, Peijnenburg, 2011).

A Theoretical Framework for Mindful Parenting

Despite support for the benefits of applying mindfulness science to parenting, there has been less consensus within the field on how to operationalize “mindful parenting.” In an effort to address this ambiguity, Duncan et al. (2009a) developed a theoretical model to help guide basic and applied research on mindfulness in parenting (see Figure 1). The model holds that mindful parenting is a multi-dimensional construct encompassing five core constructs representing both intra- and inter-personal processes: a) listening with full attention; b) nonjudgmental acceptance of self and child; c) emotional awareness of self and child; d) self-regulation in the parenting relationship; and e) compassion for self and child. Listening will full attention involves present-centered awareness of and receptivity to youth verbalizations and behaviors. It also entails accurately discerning youth meaning through recognizing the cognitive filters and biases one brings to one’s interactions with youth. This leads into nonjudgmental acceptance of the youth’s being (strengths, weaknesses, interests, etc.), which may at times be quite different from certain expectations or desires the parent has for the youth. There are a couple points about this dimension of mindful parenting important to note. For one, recent thought suggests that “low” judgmental acceptance—rather than “non”—may be a more accurate representation of the meaning and ethic underlying mindfulness. Also, whereas nonjudgmental acceptance of child entails a fundamental acceptance of youth attributes, it does not mean a resignation to problematic youth behavior or a relaxation of healthy limits.
Both listening with full attention and nonjudgmental acceptance contribute to parents’ adopting a youth-centered perspective, and to recognizing the thought patterns that often lead to the automatic reactions detrimental to their relationship with their youth. Another key element of nonjudgmental acceptance is cultivating an acceptance of one’s own miss-steps and the difficulty involved in parenting. The third dimension of mindful parenting, emotional awareness, involves recognizing the emotional states of oneself and one’s youth, and how these may motivate behavior. By attending to youth emotion and its underlying meaning, parents are better able to respond to and meet youth needs in that moment. Fostering self-regulation as a parent involves exercising self-control to remain calm and present-centered when confronted with potentially upsetting youth behaviors (albeit those falling within the normative range). It allows for greater capacity to act in accordance with the goals and values individuals set for themselves as parents. Lastly, compassion entails an empathic openness and responsiveness to youth experience, particularly when the youth is experiencing or relaying some level of distress. It involves a desire to be supportive and comforting in a manner that is youth-centered. Parents are also encouraged to show compassion towards themselves when they act in a way they later regret in interactions with youth (Duncan et al., 2009a; 2009b).

Measuring Mindfulness in Parenting as a Developmental Process

Whereas several questionnaires of intrapersonal mindfulness have been developed and successfully utilized (Baer, 2011), fewer scholars and scientists have approached the measurement of external manifestations of mindfulness such as mindful parenting. In basic research and intervention studies alike, mindfulness within the parenting context is often either unmeasured or measured indirectly through examining associations between parent- and relationship-level factors and general levels of parent mindfulness (Altmaier & Maloney, 2007;
Haydicky, Wiener, Badali, Milligan, & Ducharme, 2012; Van der Oord et al., 2011; Williams & Wahler, 2010). Fewer have attempted to operationalize and explicitly measure associations between mindful parenting and other parenting, relationship, and youth outcomes (Coatsworth et al., 2010). A pressing issue for the field, therefore, is establishing well-validated and widely recognized measures of the mindful parenting construct in order to better understand its function as a developmental process.

The lack of mindfulness in parenting measures — to date, only one measure exists: the 10-item Interpersonal Mindfulness in Parenting Scale (IM-P; Duncan, 2008) — may be a factor of the newness of the field. It may also, however, be due to uncertainty on whether mindfulness can even be observed and measured in the interpersonal context (similar to the doubt which has surrounded the measurement of intrapersonal mindfulness (Brown & Ryan, 2004). Prior research, however, has demonstrated the concurrent and discriminant validity of the IM-P; for instance, mothers’ self-reports of mindful parenting were related to parent-child affective quality and general child management (Duncan, 2008). In addition, the IM-P has been used to measure change in intervention trials (Coatsworth et al., 2010; MacDonald & Hastings, 2010). Yet a difference exists between an individual (who has access to his or her own internal states) reporting on a construct, and an outside observer recording measurements on that construct (as is done in observational measures). Yet there are conceptual and empirical reasons to believe that this can be done (the latter will be described in greater detail below). To a considerable degree, mindfulness as an individual practice and state involves internal emotional and cognitive processes. The innovation behind mindfulness applied to parenting is that it translates internal processes of awareness, attention, regulation, acceptance, and compassion to one’s approach towards and interactions with others. Mindful parenting prevention and intervention programs
have been built on the assumption that the cultivation of intrapersonal mindfulness capacities and interpersonal mindfulness-based skills lead to changes in parenting behavior that generalize across contexts (Dumas, 2005; Duncan et al., 2009a, 2009b; Greenberg, 2011). In other words, practicing mindful parenting leads to changes in parenting behavior, changes which should be observable (See Figure 2). Approaches towards measurement must correspond with the assumptions underlying current basic and applied research efforts. The position taken by the current study, therefore, is that mindful parenting can indeed be observed, and that to do so is a logical extension of the theory underlying MP.

**Observational Assessment: Rationale and Application to Mindful Parenting**

As mentioned above, one self-report measure of mindful parenting has been developed and validated, and its use across different research efforts is growing (Coatsworth et al., 2010; Duncan et al., 2009b; MacDonald & Hastings, 2010). Whereas there is certainly room in the field for further use, revision and development of such self-report measures, observational methods may hold unique utility for the assessment of mindful parenting. By nature, observational methods surpass self-report in the depth and complexity of information they can provide surrounding transactional dynamics of interactions between individuals—for example, how one person’s actions are formed by another’s actions and reactions (Dishion, Nelson, & Bullock, 2004; Margolin et al., 1998). Because interpersonal mindfulness may be especially evident in discrete behavioral sequences as well as in consistent patterns of interaction, observational assessment may be particularly well-suited for studying MP.

Observation also allows for the disentanglement of individuals’ perceptions of different relational phenomena from actual qualities of interaction. This is especially pertinent in light of research on family conflict demonstrating that fathers, mothers, and youth tend to report
differently on the levels of emotional distress incurred by conflict as well as the amount of time needed to return to the status quo post-conflict (Steinberg, 2001). Because individuals’ perceptions of mindful parenting may differ in meaningful ways from each other, it may be especially useful to consider objective judgments of the construct made by a trained, third-party observer; furthermore, independent observers are often able to quantify family processes that are outside family members’ awareness or capacity for articulating, and are therefore inaccessible to self-report methods (Hops et al., 1995).

Observational methodologies are also advantageous for their circumvention of certain biases that threaten self-report measures, such as social desirability, intentional misrepresentation of information, and recall errors (Hampton & Beavers, 2004; Margolin et al., 1998). Additionally, studies based solely on self-reports may over-estimate the magnitude of associations between variables of interest (Dishion et al., 2004). Use of direct observation also avoids problems introduced by individuals misinterpreting or misunderstanding the meaning of items being asked by questionnaires.

Observational measures are not without their own disadvantages, however. For one, the training and ongoing monitoring of coders required for maintaining an observational coding system is time and resource intensive (Hops et al., 1995). In addition, individuals tend to be more wary of participating in observational tasks than paper-and-pencil questionnaires (Duncan et al., 2012). Users of observational measures in parenting must also be attentive to how cultural, socio-economic, or other demographic differences between the observer and the individual(s) being observed may influence how behaviors are perceived and consequently rated. The relative advantages and disadvantages of both observational and questionnaire methods of assessment ultimately calls for a mixed methods approach towards studying family relationship
processes such as mindful parenting; using self-report and observational measures as complements will allow for greater breadth and complexity in research design than just one or the other.

It should be noted that there have been some initial efforts to measure parenting behaviors associated with mindful parenting using extant observational measures of parenting and parent-youth relationship factors. For instance, Duncan and colleagues (2012) compared mother’s self-reports of mindful parenting on the IM-P to ratings of mother-youth interactions on the Iowa Family Interaction Rating Scales, 5th Edition (IFIRS; Melby et al., 1998). Compared to mothers low in self-reported mindful parenting, mothers with high levels showed more warmth, greater consistency and less harsh discipline, better child monitoring, and more assertiveness. Mothers reporting high levels of mindful parenting spent more quality time with youth, and their interactions with youth reflected a more positive affective quality (Duncan et al., 2012). These findings are valuable in that they provide evidence that real, observable differences in behavior exist between mothers self-reporting high and low on mindful parenting. However, a more explicit test of observed mindful parenting is needed to most accurately capture the interpersonal processes involved. To date, no observational rating system has been deliberately developed upon the conceptual foundation of mindful parenting with the purpose of measuring this construct.

As such, the purpose of the present research is to introduce and test a novel observational measure of mindful parenting to help advance both basic and applied research. The various scales in the MPOS are proposed to tap into the components of mindful parenting that are interpersonal in nature (such as demonstrating compassion for the youth and listening with full attention) as well as how intrapersonal components of the construct may manifest in outward
behavior (such as nonjudgmental acceptance and emotional awareness). Traditionally, observational measures of family interactions often assess parenting at the dyadic level, meaning that both parent and youth behavior are coded to the same extent (Hops et al., 1995; Melby et al., 1998; Stubbs, Crosby, Forgatch, & Capaldi, 1998). The MPOS is different in that it assesses parenting largely at the individual level—parent behavior is the object of focus and youth behavior is coded to a lesser extent. Observational measurement of parenting at the individual level in this way, however, is not without precedent in the literature—oftentimes, researchers choose to include just parent ratings when given a vast array of dyadic data (Fletcher, Elder & Mekos, 2000; Melby et al., 1993).

The development of the MPOS measure has been highly iterative. In short, three key sources informed the development of the measure: the theoretical literature; expert opinions of researchers and scholars in the fields of parenting, mindfulness science, and mindful parenting; and strategic, systematic viewing of parent-youth interactions. From each source, a list of interpersonal behaviors suggested to characterize mindful parenting was compiled. Then a conceptual mapping across sources was performed to indentify groups of behaviors that represented different higher-order factors within the over-arching mindful parenting construct. These higher-order factors became the basis for each rating scale included in the MPOS.

**Research Aims**

Broadly, the aims of this study were two-fold: 1) to test the inter-rater reliability of the MPOS; and 2) to examine whether the MPOS scales account for additional variance in youth developmental outcomes beyond what can be explained by observational measures of parenting (IFIRS scales) and a self-report measure of mindfulness in parenting (IM-P). Regarding this second aim, we will test whether observed mindful parenting predicts concurrently to meaningful
differences in the following outcomes often examined in empirical work utilizing the observational IFIRS: substance use (Melby et al., 1993; Scaramella, Conger, Simons, & Whitbeck, 1998), externalizing and internalizing symptoms (Conger, Ge, Elder, Lorenz, & Simons, 1994; Conger et al., 2002; Scaramella et al., 1999; Simons, Whitbeck, Beaman, & Conger, 1994) and youth competencies (Conger et al., 1992; Fletcher et al., 2000; Whitbeck et al., 1991).

Given the novelty of the mindful parenting construct and relative lack of empirical literature, this study is largely exploratory rather than confirmatory or hypothesis-testing in nature. Nevertheless, several expectations guide this work. The first is that independent raters can reliability rate dimensions of mindful parenting as operationalized in the proposed rating scheme. Second, we predict that observed dimensions of mindful parenting will show associations with youth outcomes above and beyond self-reports of mindful parenting and common dimensions of the IFIRS.

Method

The present study is based on data from PROSPER, an effectiveness trial examining the individual-, family-, and community-level impacts of youth substance-abuse prevention programming (Spoth, Greenberg, Bierman, & Redmond, 2004). PROSPER has been following two cohorts of over 10,000 youth from their middle school years onward. Wave 1 recruitment targeted all 6th graders in 28 Pennsylvania and Iowa school districts: of those, 93.4% in Cohort 1 and 96.9% in Cohort 2 agreed to participate in completing written questionnaires in school. In addition, 2,267 families of youth in the second cohort were invited to participate in an in-home data collection of parent, video, and additional youth data. Family recruitment was done at the community level, ensuring that equal percentages of families from all study school districts were
issued an invitation to participate. Families were recruited through mailings, telephone calls, and in-home visits. Sample size goals ranged from 30 families in the smallest school district to 74 in the largest: achieved samples sizes ranged from 18 to 68 families per district. For the total in-home sample, 979 of targeted families (43%) completed data collection at W1.

Analyses testing for differences due to selection bias between the larger in-school sample and the smaller in-home sample have shown that these two groups are not significantly different on the key demographic factors of race, gender, living with biological parents, and receipt of free or reduced-price lunch (Johnson, 2012). In addition, the samples are statistically similar on youth stress management, frequency of activities with parents, and expressions of care, affection, and appreciation between parents and youth. The in-home subsample, however, shows significantly higher levels of family cohesion, general child management, and youth problem solving competency, and lower rates of youth delinquency (Johnson, 2012).

**Participants and Procedures**

The current study utilizes data from youth who participated in both the school- and home-based assessments, and from their mothers (subsample of Cohort 2). Survey and interaction data from 50 mother-youth dyads at Wave 3 (\(N=801\) families) of PROSPER—when youth were nearing the end of the 7th grade year—were used to examine the reliability and validity of the MPOS. Notably, these 50 mother-youth pairs represent mothers who scored at the two opposite tails of a distribution of self-reported mindful parenting. In line with the exploratory nature of the present study, this extreme group method was taken to increase the chances of eliciting parenting behaviors representative of high and low mindfulness in parenting. Table 1 presents information on the demographic make-up of the mothers and adolescents included in the analytic subsample.
For the in-home assessment, youth and parents completed written questionnaires individually and participated in structured dyadic (parent-youth) and triadic (mother-father-youth) DVD-recorded interaction tasks. In the 15-minute dyadic task upon which analyses are based, the mother and youth discuss a series of 13 questions about the nature of their relationship. Questions are designed to elicit increasingly strong emotional responses and potential for disagreement as the task progresses. Example questions include “How do I know what’s going on in my child’s life, like in school, friends or other activities”; “What does mom say when I do something she doesn’t like? Does she always do what she says she will do when this happens”; and “If I ever have children, in what ways will I raise them like my mom has raised me? In what ways will I raise my children differently?”

The present study employs behavioral ratings from two distinct observational coding systems, the IFIRS and the MPOS. Ratings for each were made by separate coding teams operating at different points in time.

Measures

The measures utilized to assess the psychometric properties, convergent validity, and predictive power of the MPOS have been used in prior PROSPER research investigating the impact of drug prevention programming at various levels of analysis (Spoth, Redmond, & Shin, 1998; Spoth et al., 2004). Many of these measures originate from the Iowa Youth and Families Project (Conger, 1989; McMahon & Metzler, 1998). Internal consistency reliability is presented for composite scores where necessary based on Cronbach’s alpha coefficients from Wave 3 item responses.
Demographic information. Standard items were used to assess the following factors to be used as controls in subsequent analyses: mother and youth age and race/ethnicity; highest level of education attained by mother; mother’s relationship to youth; and youth gender.

Mindfulness and mindful parenting.

Mindful parenting self report. Self-reports of mindful parenting were gathered through use of the Interpersonal Mindfulness in Parenting scale (IM-P; Duncan, 2008). The 10-item questionnaire includes items representing four of the five theoretical dimensions of mindful parenting: (1) present-centered attention to internal experience and one’s youth (e.g., “I rush through activities with my child without being really attentive to him/her”); (2) emotional awareness of internal experience and one’s youth (e.g., “I am aware of how my moods affect the way I treat my child”); (3) openness and nonjudgmental acceptance of youth’s thoughts and emotional displays (e.g., “I listen carefully to my child’s ideas, even when I disagree with them”); and (4) self-regulation of reactivity in parenting interactions (“When I am upset with my child, I calmly tell him/her how I am feeling”). Mothers indicated the extent to which an item was true of themselves on a 5 point likert-type scale ranging from 1 (“Never True”) to 5 (“Always True”). Items were recoded as necessary so that high scores indicate greater levels of mindful parenting. Psychometric properties of this measure—such as convergent and discriminant validity—have been demonstrated by a previous study (Duncan, 2008). Among the present sample, the measure demonstrated a Chronbach’s alpha reliability of .93.

Mindful parenting behavioral observations. Mothers’ mindful parenting was assessed observationally through the Mindful Parenting Observational Scales (MPOS; Geier et al., 2012). The measure consists of 17 behavioral rating scales of parenting behavior that assess various facets of how mindful parenting is hypothesized to manifest interpersonally, and 1 rating of
youth behavior. Parent scales were deliberately designed to cut across the five theoretical
dimensions of MP described by Duncan et al., (2009a) (see Table 2).

The behavioral ratings included in the MPOS are designed to be used within an interval
coding scheme. For the present study, each 15-minute dyadic mother-adolescent interaction was
divided into five 3-minute segments; thus, mothers and youth were scored on each rating scale at
5 consecutive time points. All ratings were made on a Likert-type response scale ranging from 1
(“Low”/“None”) to 5 (“High”). The paragraphs that follow offer a brief overview of the content
measured by each behavioral rating. For a fuller description of each scale and key behavioral
indicators and counter-indicators, please see the instrument’s rating manual and scoring sheet in
Appendix A.

*Attentive Listening* measures the extent to which the quality of a mother’s listening
reflects a present-centered focus on her youth. *Verbal Reciprocity* addresses two key
components of mothers’ dialogue with youth: (1) the degree to which her speech content is
continuous with the deeper meaning of youth’s; and (2) whether she is an active and willing
participant in the interaction. *Validation* assesses mother’s communication of understanding
and/or agreement with youth’s statements and emotions. *Openness/Acceptance* is concerned
with the degree to which mother is accepting—with minimal judgment—of youth’s opinions,
attitudes, behavior, attributes, and emotions.

*Reactivity* was assessed using four subscales. As mindful parenting is characterized by
low parent reactivity to past or present statements or behaviors by their youth, the MPOS uses
the following four separate subscales to assess various features of reactivity: (a) *Wait time*, or the
response latency between when youth stops talking and mother begins; (b) *Emotional Valence*,
or the frequency of positive and negative affect in mom’s responses to youth; (c) *Intensity*, or the
emotional strength, magnitude, meaning of mother’s responses; and (d) Referent Appropriateness, or the degree to which a mother’s response maintains or switches the focus of the statement by youth that preceded her response.

Contempt reflects the degree to which a mother conveys blatant disrespect or disregard for her youth, often in a hurtful, humiliating, or belittling manner. Defensiveness addresses whether mother’s behavior is characterized by attempts to avoid responsibility, blame, or judgment. Affection assesses the frequency and strength of clear, intentional displays of caring, concern, comfort, and love. Compassion focuses on the degree or recognition, empathy, and child-centeredness in mother’s approach towards youth in instances of potential or actual youth experience of negative emotion. Importantly, this rating is contingent upon certain mother or youth behaviors presenting during the interaction; a rating for compassion cannot be given if there is no opportunity for mother to display it. For this reason, ratings for segments that were deemed “not rateable” for compassion were treated as missing data in analyses.

The MPOS includes two ratings for the frequency with which mother uses emotion words in the course of her speech, in reference to herself and to her youth. The first, Emotion Speech, General, rates the frequency with which mother uses emotional words to describe global emotional states or discrete emotions felt in the past (or anticipated to be felt in the future). The second rating, Articulation of Present Emotion, measures mother’s verbalization of emotion she is feeling in the present moment, and/or how she perceives youth to be feeling presently.

Finally, youth intensity measures the emotional strength, magnitude, and meaning of youth’s behavior and emotional expressions. This single youth rating was included to aid in interpreting the degree to which ratings on parent scales reflect levels of mindful parenting. For example, high ratings on Wait Time and Attentive Listening in the face of a youth who is notably
difficult and/or provocative towards mom would be more reflective of high overall mindful parenting than high ratings on these scales when youth is very amiable and non-confrontational.

For the purposes of the present analyses, segment-specific scores for mother intensity, negative emotional valence, defensiveness, and contempt were reverse coded so that for all ratings, higher scores reflected higher interpersonal mindfulness. Next, summary scores for each rating scale were created by averaging that scale’s segment-specific scores across all 5 segments. Means and standard deviations can be found in Table 5. Data were further reduced to five first-order composite scores which correspond with the five conceptual dimensions of mindful parenting described above (Duncan et al., 2009a). To create these composites, a decision was made for each scale regarding which conceptual dimension the scale mapped onto most strongly (e.g. the Attentive Listening rating scale corresponds highest with the dimension of Listening with Full Attention). Composites were then made by averaging scores across the scales within a conceptual dimension (see Table 3). Notably, the Articulation of Present Emotion scales were not included in any of the first-order composite scores due to a very low base rate and resultant low variability. These composites were used for all non-reliability analyses (i.e. Aim 2).

The 50 cases in the analytic sample were rated on the MPOS by two observers working independently. Before independent rating, observers completed roughly 60 hours of training on the MPOS instrument and achieved an acceptable standard of reliability, defined as scoring within 1 scale point of a “Gold Standard” score for at least 90% of all ratings made across the 15-minute interaction. Gold standard ratings were established through a process by which a committee (Mary Geier, Doug Coatsworth, and Christa Turksma) independently rated interactions and then decided on appropriate ratings for each scale in each segment. To maintain reliability and prevent coder drift, 25% of interactions were double-coded and observers met
biweekly to discuss past double-codes, resolve difficult rating decisions, and to practice rating as a group.

**Parenting behavioral observations.** The Iowa Family Interaction Rating Scales, 5th Edition (IFIRS; Melby et al., 1989) served as a standard observational measure of parenting to use as a point of comparison to the MPOS. The IFIRS is comprised of four categories of scales which characterize both behavioral and emotional components of family interaction: individual characteristics scales, dyadic/group interaction scales, parenting scales, and individual problem-solving scales. Readers are referred to Appendix B for an overview of the scales included in the IFIRS, and to Melby and Conger (2001) for a detailed description of these codes and the IFIRS coding process. For the present study, mothers were assigned scores on each of the IFIRS scales at the end of the 15-minute dyadic interaction. Scores were made on a 9-point Likert-type response scale ranging from 1 (“Not at all characteristic”) to 9 (“Mainly Characteristic”). The present analyses are restricted to a subset of IFIRS dyadic interaction and parenting scales. Interrater reliabilities calculated for these scales in prior studies have produced intraclass correlation coefficients (ICCs) ranging from .56 to .89 for the dyadic interaction scales (Conger et al., 1992; Conger, Reuter, & Elder, 1999; Conger et al., 2002; Spoth, Goldberg, & Redmond, 1999; Wickrama, Conger, Lorenz, & Matthews, 1995), and from .60 to .82 for the maternal parenting scales (Conger et al., 1992; Conger, Cui, Bryant, & Elder, 2000; Conger et al., 2002). Ratings for these scales were combined into a series of composite scores reflecting key dimensions of parenting. These composites are consistent with those created previously by other research utilizing the IFIRS (see Table 4).

**Youth problem- and competence-related outcomes.**
Youth substance use. A Poly-substance Initiation Index (α = .57) was created to capture the extent to which youth had ever used a variety of different illicit substances. A sum score was created by adding a series of seven dichotomous items [0=no; 1=yes] which asked whether youth had ever tried the following: alcohol; cigarettes; marijuana or hashish; inhalants such as glue, paint, or gas; methamphetamine; ecstasy; hard drugs or medications prescribed by a doctor to someone else; or potent painkillers such as Vicodin or Oxycontin.

Youth internalizing and externalizing symptoms. Fourteen items from the Youth Self-Report (YSR; Achenbach & Rescorla, 2001) encompassing anxiety and depressive symptoms were used to assess internalizing symptoms (α = .87). Example items include “I worry a lot” (anxiety) and “I am unhappy, sad, or depressed” (depressive). Youth rated the extent to which each statement was true of them over the past 6 months on a 3-point Likert-type scale ranging from 0 (Not true) to 2 (Very True or Often True). Externalizing symptoms were assessed with 18 similarly scored items from the YSR (α = .72). Example items include “I destroy things belonging to others,” and “I argue a lot.”

Youth competencies. Several composite scores were created to assess a variety of youth competencies, including peer pressure resistance skill, control/self-efficacy, self-esteem, life satisfaction, happiness, and goal setting. Youth ability to resist peer pressure was measured with 7 items asking youth to rate the extent to which they would give in to peers in a variety of different situations, the majority of which related to substance use or delinquent behavior (e.g. “If a friend dared you to smoke a cigarette, would you smoke it?”) (α = .84). Responses were made on a 5-point Likert-type scale. Mastery and self-efficacy were assessed via 7 items rated on a 5-point Likert scale ” (α = .76). Youth were asked to indicate the degree to which they agreed with statements such as “There is really no way I can solve some of the problems I have.
Nine items were used to assess self-esteem ($\alpha = .83$). Youth rated on a 5-point Likert scale the extent to which they agreed or disagreed with statements such as “I feel that I have a number of good qualities.” Life satisfaction was assessed through 5 items which asked youth to rate how often they felt a certain way during the past month (e.g. “How much of the time have you generally enjoyed the things you do”). Items were answered on a 6-point Likert scale and the internal-consistency was .88. A 4-item goal setting scale asked youth to rate how true a given statement was of the self on a 5-point Likert scale (“I am capable of making good plans for reaching the goals I have) ($\alpha = .65$).

Finally, happiness was assessed with 4 items borrowed from the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999) ($\alpha = .78$). Youth were presented with a scale ranging from 1 (Not a very happy person) to 7 (A very happy person), and asked to select a number which best described them for each item (e.g. “Compared to most of my friends, I consider myself”). All of the competency items described above were recoded as necessary so that higher composite scores reflected greater levels of the particular asset. Due to strong inter-correlations between items for control/efficacy, self-esteem, life satisfaction, happiness, and goal setting, data were further reduced to an overall score of all youth competency outcomes except peer pressure resistance skills (the inter-correlations between peer pressure resistance and the other competency outcomes were notably weaker). Composite scores representing each construct were first z-scored because not all competency items shared the same response scale. Then, a global composite was created by averaging the z-scored scales for self-efficacy, self-esteem, life satisfaction, happiness, and goal setting.
Results

Aim 1: Inter-Rater Reliability of the MPOS

Thirteen of the 50 total cases in this study were rated by both observers (a double-code rate of 26%) and thus constitute the sample upon which reliability analyses are based. For each case, inter-rater reliability was assessed through calculating percent agreement and Intraclass Correlation Coefficients (ICCs) for each behavioral rating scale within the MPOS. Analyses for the first aim were conducted in SAS statistical software, version 9.2.

**Percent agreements.** Our approach was based on that taken by prior research on the psychometric properties of observational measures, such as the Classroom Assessment Scoring System (CLASS; Paro, Pianta, & Stuhlman, 2004) and the Sibling Interaction Ratings instrument (SIB-R; Bullock & Dishion, 2002). To assess the correspondence of the raters, we calculated the percentage of times the raters scored within one scale point of each other on a given scale across all 5 segments of the dyadic task. For each scale, a total of 65 “scores” were calculated by both raters. Results are presented in Table 5. An *a priori* criterion for acceptable inter-rater reliability was set at observers scoring within 1 scale point of each other at least 90% of the time. This criterion is somewhat more stringent than is used with other rating systems (e.g., CLASS), although sometimes those systems utilize response scales with more than 5 points (e.g. 7-point; Paro et al., 2004). The aforementioned standard set for the MPOS was met by all scales in the MPOS except for Verbal Reciprocity (89%), Compassion (70.77%), and Youth Intensity (81.54%).

**Intraclass correlation coefficients (ICCs).** To supplement percent agreements, ICCs were calculated for observer’s scores on each MPOS rating scale across a given interaction. Within the ICC framework, the desirable outcome is for as little variance in a rating scale (such...
as *Attentive Listening* as possible to be attributable to differences between raters. The ICC itself represents the percentage of variance attributable to the segment being observed; thus, the variance due to differences between rater is $1 - ICC$. Therefore higher coefficient values represent greater consistency and reliability between raters. Several methods for computing ICCs exist; the present analyses utilized the Shrout-Fleiss fixed-set method, which assumes that all cases are rated by the same observers, and that these observers constitute the entire population of observers (Shrout & Fleiss, 1979). This approach was chosen over the random-set approach (which assumes that observers are a random subset of all possible observers) because the observers who rated for the current study are the only individuals currently trained to rate mindful parenting on the MPOS.

The ICCs for each behavioral rating scale can be found in Table 5. In general, coefficients are of moderate to moderate-high strength (Range = .57 - .99). For 9 of the 18 behavioral ratings, less than 30% of the variance in scores could be attributed to differences between raters. An additional 6 ratings had between 30-40% of variance attributable to rater, and for the remaining 3 ratings, differences between raters was responsible for between 40-50% of the variance in scores.

**Aim 2: Incremental Validity of the MPOS**

The second aim of the present study is concerned with the incremental validity of the MPOS. To address this question, hierarchical regression models were used to examine whether the MPOS explains variability in youth developmental outcomes above and beyond that explained by another observational measure of parenting behavior (IFIRS) and by self-reports of mindful parenting (IM-P). Being able to explain outcome variance beyond an established observational measure of parenting and self reports of the specific parenting construct of interest
would strengthen the argument for investing the necessary time and resources into use of the MPOS. A series of hierarchical regression models were built for each youth outcome of interest. The first three blocks of model predictors represented the different levels of covariates against which the predictive power of the MPOS was tested: 1) mother and youth demographic variables; 2) IFIRS scores; and 3) IM-P scores. MPOS scores were entered as the fourth and final block of predictors. Due to the exploratory nature of this study and the modest sample size (N=50), the alpha for significance level was set at .10 to protect against Type II error. Analyses for the second aim were also conducted in SAS statistical software, version 9.2.

A series of preliminary analyses were conducted in preparation for building the models explained above. To ensure that the distributional properties of predictor and outcome variables met the assumptions of normality underlying the hierarchical framework, skewness and kurtosis estimates were generated. Youth race data were recoded into a single dichotomous variable (0=Minority and 1=White) when results for the original dummy coded variables indicated exceedingly high skew. The distributions of all other relevant variables fell within the realms of normality; thus no additional variable transformations were deemed necessary. Due to a low level of missing-ness, imputation of missing values was not deemed necessary. One case was missing all scales from the IFIRS, and was dropped from the study, yielding a final n = 49 for the second part of the study.

Because of the relatively small sample size, preliminary steps were also conducted to reduce the number of variables to be entered into the regression analyses. For the purposes of model parsimony, only those demographic and IFIRS variables with at least a .20 bivariate correlation with the youth outcome being tested were included in the first and second blocks, respectively (correlations between all predictors and youth outcomes can be found in Table 6).
Zero-order correlations between the MPOS composite scores revealed that four of the five first-composites demonstrated high colinearity, ranging from $r = .34$ to $r = .69$ (see Table 7). These were listening with full attention, emotional awareness, nonjudgmental acceptance, and compassion (the first-order composite score that did not correlate well with the others was self-regulation in parenting). Also, alpha analysis reinforced the possibility of a two-factor, higher-order model. Given this in addition to our interest in model parsimony, a second-order composite variable ($\alpha = .79$) was created to represent the factor super-ordinate to these four first-order composites. Thus the fourth block consisted of the second-order composite (MPComposite) and the independent, relatively non-related first-order composite, self-regulation in parenting.

Because we also wanted to examine the unique contributions of individual dimensions of mindful parenting (represented by the 5 first-order composites), a series of post-hoc analyses were planned. Whenever analyses indicated that the MPOS block reached a significance level alpha of .10 (or lower), we conducted an additional set of regression analyses in which each individual first-order composite within MPComposite was entered into the final block (along with self-regulation in parenting). Doing so lent additional insight into which sub-ordinate factors within the MPComposite factor were most influential. Bivariate correlations between MPOS composite scores and youth outcomes can be found in Table 8, and results of hierarchical regression analyses (including post hoc tests) are presented in Table 9.

**Youth global competency.** The full regression model predicting youth global competency was not statistically significant, $F(4, 45) = 1.38$, and accounted for only 11% of the variance. None of the predictors—maternal race/ethnicity, mother’s self-report of mindful parenting, the IFIRS, or the MPOS—were significant in the final regression model.
**Youth peer pressure resistance skills.** The full regression model predicting youth peer pressure resistance skills was statistically significant, $F(6, 42) = 4.83$, and accounted for 41% of the variance. Of the control variables entered into the regression model predicting peer pressure resistance, youth age was significant. Older youth were more adept at resisting the influence of friends to engage in delinquent behavior or substance use. Youth gender, mother’s child management, and mother’s self-reported MP were not associated with peer pressure resistance. Within the MPOS block, the composite for self-regulation in parenting was not significantly related to the outcome. The second-order factor encompassing listening with full attention, emotional awareness, nonjudgmental acceptance, and compassion (MPComposite), however, did predict to peer pressure resistance ($\beta = .32, p < .05$). Higher levels of observed mindful parenting were related to better peer pressure resistance. *Post hoc* analyses provided a greater understanding of the specific elements of mindful parenting responsible for this association: listening with full attention and nonjudgmental acceptance were positively and significantly related with the outcome ($\beta = .34, p < .05$; $\beta = .30, p < .05$, respectively), while emotional awareness and compassion were not statistically significant predictors.

**Youth externalizing problems.** The full regression model predicting youth externalizing problems was statistically significant, $F(8, 40) = 2.49$, and accounted for 33% of the variance. Mother and youth age were significant predictors of youth externalizing behavior (the other controls—mother’s child management, supportive parenting, warmth, and self-reported MP—were nonsignificant). Youth of older mothers were less likely to act out or display defiant behavior, whereas youth who were older themselves were more likely to display these behaviors. Although self-regulation in parenting was also not related to youth externalizing, the MPOS second-order composite showed a modest association ($\beta = -.36, p < .10$), in that higher levels of
mindful parenting predicted fewer youth externalizing behaviors. *Post hoc* analyses revealed that the individual MPOS composite listening with full attention was significantly associated with lower externalizing (β = -0.40, p < .05), and nonjudgmental acceptance showed a trend towards lower externalizing (β = -0.38, p < .10).

**Youth internalizing symptoms.** The full regression model predicting youth internalizing problems was statistically significant (*F*(8, 40) = 2.46, and accounted for 33% of the variance. Of the control variables entered into the model, mother age and mother’s self-reports of mindful parenting showed a moderate association (β = -0.26, p < .10, β = 0.28, p < .10, respectively). Youth of older mothers reported significantly fewer anxiety and depressive symptoms, while youth of mothers who reported higher mindful parenting showed more of these symptoms. All other controls (nurturance/involvement, child management, supportive parenting, warmth, and MP self-report) were nonsignificant. Regarding the MPOS predictors, self-regulation was non-significant but the second-order factor (MPComposite) showed a moderate association (β = 0.40, p < .10), such that higher levels of mindfulness in parenting were associated with more internalizing symptoms. Post hoc regressions showed that youth who reported more anxiety and/or depressive symptoms had mothers who were significantly more emotionally aware (β = 0.31, p < .05) and significantly more compassionate (β = 0.48, p < .05).

**Youth poly-substance initiation.** The full regression model predicting youth externalizing problems was moderately significant (*F*(7, 38) = 2.02, and accounted for 27% of the variance. Youth age was a significant predictor of youth poly-substance initiation (the other controls—youth race/ethnicity, mother’s hostility, nurturance/involvement, and self-reported mindful parenting—were nonsignificant). Older youth were more likely to have begun using at least one illicit substance, including alcohol, cigarettes, marijuana, inhalants, hard drugs, or
potent painkillers. Although self-regulation in parenting was also not related to youth substance use initiation, the MPOS super-ordinate factor was trending towards significance ($\beta = -.37, p < .10$), in that higher levels of mindful parenting predicted less substance use. Post hoc analyses revealed that listening with full attention was significantly associated with lower use ($\beta = -.35, p < .05$), and nonjudgmental acceptance showed a trend towards lower use ($\beta = -.39, p < .10$).

In sum, the MPOS super-ordinate factor was a significant predictor of all youth outcomes except global competency at either the $p < .05$ level (peer pressure resistance skill) or $p < .10$ level (externalizing, internalizing, and poly-substance initiation). Post hoc tests revealed that listening with full attention and nonjudgmental acceptance drove the association between mindful parenting and peer pressure resistance (positive), externalizing (negative), and substance initiation (negative). Emotional awareness and compassion were responsible for the positive association between mindful parenting and youth internalizing.
**Discussion**

Interpersonal mindfulness in parenting has recently become a construct of interest to researchers and clinicians, and although some excellent conceptual work is noted in the literature (Dumas, 2005; Duncan et al., 2009a; Kabat-Zinn & Kabat-Zinn, 1997), there remains a dearth of measures to advance the empirical work on this interesting construct. One important research question in this area is whether mindful parenting can be observed (Duncan et al., 2012; Greenberg, 2011). This study is the first to attempt to operationalize and measure observationally the construct of mindfulness in parenting. Its guiding aims were to investigate the reliability of a new observational measure of mindful parenting (MPOS) and to evaluate its unique associations with adolescent developmental outcomes after controlling for demographic variables and specific parenting variables from observational and self-report measures. Overall, results of this study show that the MPOS scales can be reliably rated by independent observers and that these scales show associations with youth outcomes that are independent from other dimensions of observed parenting or self-reported mindfulness in parenting.

The percent agreement and inter-class correlation analyses performed to assess the inter-rater reliability of the MPOS demonstrate that it does hold promise for being used across multiple observers working independently. The two observers who rated parenting interactions for the present analyses scored within one scale point of each other at least 90% of the time on 15 of 18 MPOS rating scales. The percent agreement between observers on these 15 scales is comparable to that attained in the course of research utilizing other similarly-structured observational measures. Observers on the CLASS, which is based upon 7-point response scales, were required to reach a reliability criterion of rating within 1 scale point of a gold standard 80%
of the time (Paro et al., 2004). In a study utilizing the 4-point SIB-R, observers scored within 1 scale point of each other 91% of the time (Bullock & Dishion, 2002).

ICC results also indicate good reliability of these scales, with coefficients ranging from .53-.99. For purpose of comparison, ICCs for the maternal parenting and dyadic interaction scales of the IFIRS routinely range from .56 to .89 in research utilizing this measure (Conger et al., 1992; 1999; 2000; 2002; Spoth et al., 1999; Wickrama et al., 1995).

Analyses showed that several of the scales may have been particularly difficult to rate reliably. Percentage agreement was below 90% for Verbal Reciprocity (89%), Youth Intensity, (82%), and Compassion (71%). The following nine MPOS scales had ICCs of .70 or less: attentive listening; validation; wait time; emotional valence: negative, referent appropriateness; defensiveness; emotion speech: self; compassion; and youth intensity. For each of these scales, the percentage of variance attributable to non-systematic differences between raters was greater than 30%. Several issues may have been responsible for the lower reliabilities for these particular scales. They may be inherently more complex conceptually than other scales; or alternately, not well articulated in the MPOS coding manual. The Compassion rating presents an interesting case in that it involves two decision points. For this contingent rating, raters first must first decide whether or not there is opportunity for a mother to demonstrate compassion in a given segment of interaction (if not, then the segment is given a “not rateable” code). If the answer is yes, raters must then choose a numerical rating to assign. Needing to make multiple decisions for this single rating increases the potential for disagreement among raters.

In thinking about reliability for this measure, it is important to remember that mindfulness in parenting is in many ways an attempt to operationalize the behavioral manifestations of a construct that is typically conceptualized and operationalized as an
intrapersonal construct. Mindful parenting extends the largely internal processes of mindfulness to the outward, interpersonal context of the parent-youth relationship. One of the key aspects of mindfulness found in several prevailing definitions of the construct is “presence” or “present-centered attention.” The concept of presence is an abstract concept that we attempted to operationalize through specific parent behaviors such as attentive listening and verbal reciprocity. Nevertheless, these operationalizations are not likely to fully capture such a complex and global state such as “presence.”

An important side note about the MPOS scales is that they showed relatively high intercorrelations, which resulted in the need to reduce scale data to five composite scores corresponding with the 5 conceptual dimensions of mindful parenting set forth by Duncan et al. (2009a). The high intercorrelations among the individual MPOS scales may indicate that it is especially difficult to rate the nuances across the scales as they are currently described. Although conceptually, mindfulness in parenting may consist of these distinct aspects of parenting behavior toward their youth (Duncan et al., 2009a), they may be more easily assessed in a global judgment of mindfulness in parenting than by multiple ratings of specific behaviors. This is an area for future research. The essence of observed mindfulness in parenting may be most evident in a holistic judgment about the quality of the pattern of interactions. As such, it may be a qualitative rating, similar to an attachment classification (Ainsworth, Blehar, Waters, & Wall, 1978), that is most appropriate for distinguishing different levels of mindfulness in parenting across mothers. Alternatively, greater clarity in behavioral description, greater experience with the scales and more focused training on the distinctions across dimensions could prove valuable to distinguishing the multiple dimensions of mindfulness in parenting.
The second major aim of the present research was to examine the associations between the MPOS scales and youth outcomes after covarying demographics and items from another observational measure of parenting and a self-report measure. Aside from the demographics, these covariates showed little association with the youth developmental outcomes tested in this study. For instance, associations between the observational IFIRS did not reach statistical significance at the .10 level, and the self-report of mindful parenting did so only for youth internalizing symptoms. In contrast, the second-order MPOS composite and some individual (first-order) MPOS composites did account for variance in youth peer pressure resistance skills, externalizing and internalizing problems, and substance use (after all covariates had been added to the model). This is the first study to our knowledge that has demonstrated an association between an observational measure of mindfulness in parenting and youth developmental outcomes. In doing so, it suggests that this may be a promising tool for assessing mindfulness in parenting.

That the MPOS composite showed moderate associations with youth outcomes was certainly promising for this line of research, but the associations between individual scales and youth outcomes may provide greater insight into how mindfulness in parenting may operate. The MPOS ratings found to be most often associated with youth outcomes were those that fell within the conceptual domains of listening with full attention and nonjudgmental acceptance. Mothers’ whose interactions with youth were characterized by a present-centered focus, active listening, and an open, validating stance with low levels of judgment had youth with fewer externalizing behavior problems, better peer pressure resistance skills, and a lower initiation of drugs, tobacco, and alcohol.
Whereas these effects were in the anticipated direction, the positive association between mother’s emotional awareness and compassion and youth internalizing symptoms was unexpected. Notably, this direction of effect was consistent with that found by the self-report of mindful parenting as well, which indicates that this finding reflects an actual link between variables (rather than a measurement flaw inherent to the MPOS). Instead of serving a protective influence against anxiety and depression, mother’s compassion towards youth and emotional attunement accompanied higher levels of these internalizing symptoms. Insofar as compassion and emotional awareness may overlap with maternal sensitivity to perceived child distress, these findings align with research showing that maternal overprotection—characterized by excessive caution, restrictive/protective behaviors, and comforting of a child—is associated with higher levels of internalizing symptoms in children and adolescents (Ginsburg & Schlossberg, 2002; Kiel & Maack, 2012; Krohne & Hock, 1991; Leib, Wittchen, Hofler, Fuetsch, Stein, & Merikangas, 2000). Also parental reinforcement of anxious behavior has been found to be associated with youth anxiety disorders both self-report and observational studies (Barrett, Rapee, Dadds, & Ryan, 1996; Dadds, Barrett, Rapee, & Ryan, 1996). Reinforcement of youth anxiety included such behavior as to paying attention to the child’s anxiety, agreeing with or tolerating it, and/or reciprocating the anxious behavior. It could be that the MPOS operationalizes emotional awareness and compassion in ways that also capture elements of overprotective and reinforcing behaviors as described above. An important caveat is that the cross-sectional nature of this study prevents any inferences about the direction of causality between mindful parenting and youth internalizing. It may also be possible, therefore, that mothers may react more compassionately and with greater sensitivity to youth emotion towards youth who display anxious or depressive behaviors. Future studies utilizing longitudinal data are
needed to better understand the direction of effect between dimensions of mindful parenting and youth internalizing symptoms.

Another unexpected finding was that none of the MPOS scales (nor the IFIRS and IM-P controls) predicted to the global measure of youth developmental competencies, which included items relating to control and self-efficacy, self-esteem, life satisfaction, happiness, and goal setting. Instead, mindful parenting as measured observationally by the MPOS was a much more salient predictor of youth problem outcomes such as externalizing, internalizing, and substance use. An exception is the significant association between the MPOS and youth peer pressure resistance skill. Notably, however, the peer pressure items used for this study ask youth how likely they would be to yield to peer pressure in a series of scenarios, scenarios that involve either substance use or engaging in problem behaviors such as skipping school or tearing a page out of a library book. The association between the MPOS and peer pressure alone of all the competencies, therefore, may be explained by the way in which these items were designed. Qualitatively, the peer pressure items appear to be more similar in content to the problem outcomes (to which the MPOS predicted significantly) than to the other competency items.

Interestingly, MPOS ratings corresponding with the dimension of self-regulation in parenting did not predict to any of the youth outcomes examined. This may actually be a function of restricted range. The degree of dysregulation present in the type of structured, video-recorded discussion task from which the present study (and many like it) drew data is relatively minimal. Although there were some angry outbursts observed across cases, there were few heated disagreements and fewer instances in which parents demonstrated more than low-level dysregulation. Due to the artificial task upon from which the interaction data are derived, the
amount of dysregulation represented by the data are likely a misrepresentation of what actually occurs in the day-to-day life of many families.

Another explanation may be that number of individual MPOS scales within the self-regulation composite and the difficulty of rating these scales may have contributed to a less effective index of mindful parenting. Part of this difficulty stems from the conceptual nature of self-regulation, which fundamentally involves the monitoring and dampening of internal states. It is challenging to quantify observationally parenting “behavior,” such as self-regulation, that actually involves the lack of acting upon certain cognitions. In any case, self-regulation included 5 MPOS scales, compared to the other composites which included 2-3 scales. In addition, the ICCs for the scales included within self-regulation were on the lower end of the range encompassed by all of the MPOS. The relatively lower inter-rater reliability of the scales included in the self regulation composite may have led to a less accurate indicator of mindful parenting than the other four utilized by this study.

Another finding with measurement implications is that the observational measures showed significantly stronger relations to youth outcomes than did the self-report of mindfulness in parenting. In prior analyses using structural equations modeling with a much larger sample, the IM-P has demonstrated significant associations with youth goal setting (boys and girls) and externalizing problems in girls (Duncan, 2008). That the IM-P did not show similar kinds of significant associations in this study may be due to method used or issues with restricted sample. Duncan’s sample included 753 adolescents and mothers, while ours was a selected sample of 50 families. This finding, however, may also suggest that observational approaches to assessing mindfulness in parenting may be a useful supplement to self-report measures.
Limitations and Future Directions

Several limitations to the present study merit discussion. First, the cross-sectional nature of the present study prevents any inference about the direction of effect between observed mindful parenting and the various youth outcomes examined. While it is tempting to conclude that interpersonal mindfulness in parenting is part of a causal chain from parenting style and behavior to youth outcomes, longitudinal data are required to answer this question. An additional limitation related to the research design of this study is the small, relatively homogenous sample. The majority of the 50 mothers examined for the study were white, working to middle-class, and living in a rural area. An ongoing dialogue in the field of mindful parenting centers on how elements of mindfulness may manifest differently across mothers and fathers, and across different cultural or ethnic groups. The degree to which the MPOS is sensitive to potential gender and cultural differences in mindful parenting remains an open question. That the MPOS was developed and validated on a very specific population demographic should be taken into consideration by future researchers interested in using the measure. A final limitation related to sample composition is that this study utilized the extreme group approach, selecting the 25 mothers with the highest M-IP scores and 25 with the lowest IM-P scores from a much larger sample. While the extreme group method is subject to certain weaknesses—such as over-estimation of effect-sizes—it is frequently used to identify relationships between measures (Preacher, MacCallum, Rucker, & Nicewander, 2005). The present study was exploratory in nature; future studies are needed to replicate results are larger, more representative samples of the population.

The MPOS has been developed within the context of a large-scale randomized controlled trial of a mindfulness-enhanced version (MSFP; Coatsworth et al., 2010) of the Strengthening
Families Program: For Parents and Youth 10-14 (SFP 10-14; Molgaard, Kumpfer, & Flemming, 2001). The modified program is being evaluated within a 3-arm RCT comparing MSFP to SFP 10-14 and a home-study control group. Interaction data will be collected and analyzed at baseline, immediately post intervention, and at one-year post. Observational scores on mindful parenting will be triangulated with those of self-report to address several questions about how, why, and for whom the MSFP preventive intervention works. Whether MSFP alone leads to increased parent mindfulness—and through that positive change in parent, youth, and relationship-level factors—is one such question. In addition, we will be able to examine whether any differential benefits of MSFP above and beyond SFP 10-14 are due specifically to changes in mindful parenting.

Conclusion

The MPOS is a useful tool only insofar as it can do what other measures cannot. Justifying the allocation of the financial and time-related costs necessary for using the MPOS to study mindful parenting would be difficult if it failed to add any predictive value beyond the self-report measure. Even if one was explicitly interested in how observed behaviors related to mindful parenting explain variance in youth outcomes, there would still remain little rationale for continuing to develop a new observational measure if an already established and widely-used observational instrument such as the IFIRS worked just as well. One could instead choose to use scales from the IFIRS that corresponded conceptually with mindful parenting. The present research, however, validates use of the MPOS by demonstrating that it is uniquely able to account for variance in certain youth outcomes. The MPOS significantly predicted to four of the five youth outcomes examined herein, even after controlling for the IFIRS and IM-P measures and relevant participant demographics. Specifically, the MPOS, in aggregate, had significant
independent associations with youth peer pressure resistance skills, externalizing problems, internalizing symptoms, and substance-use initiation. Furthermore, both the IFIRS and IM-P failed to relate at all to any of these youth outcomes. The MPOS fills a gap left by these two measures in understanding how certain parenting behaviors impact youth outcomes—behaviors, notably, that reflect dimensions of interpersonal processes of mindfulness in parenting.
Figure 1. Conceptual model for Mindful Parenting (adapted from Duncan et al., 2009a)

- **Mindful Parenting**
  - Listening with full attention
  - Emotional awareness
  - Self-regulation
  - Non-judgmental acceptance
  - Compassion for self and others

- **Parenting Processes**
  - Involvement
  - Communication
    - General values
    - Substance use
    - Anger management

- **Parent Stress**
  - Psychological symptoms
  - Emotional health

- **Child Management Practices**
  - Consistent discipline
  - Monitoring
  - Inductive Reasoning

- **Parent-Youth Relationship Quality**
  - Affective tone (positive/negative)
  - Problem-solving
  - Interaction style

- **Youth Problem Outcomes**
  - Substance use
  - Sexual behavior
  - Conduct problems

- **Youth Positive Outcomes**
  - Child well-being
  - Self-regulation
  - Future perspective
Figure 2. How Learning Mindfulness-based Parenting Skills Translates into the Interpersonal Context (Adapted largely from Greenberg, 2011; see also Dumas, 2005; Duncan et al., 2009)

**Mindfulness-based Parenting Principles:**
Practicing interpersonal skills and fostering internal capacities

**Parenting Behaviors:**
Internalized, generalized use of skills across contexts

**Improved Individual and Relationship Outcomes:**
Parent
Youth
Parent-Youth Relationship

Target of Observational Measurement
Table 1

Demographics of sample at Wave 3

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>M or %</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adolescents (n=50)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>42% Boys</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td>12.86</td>
<td>0.45</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European-American/Caucasian</td>
<td>86%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black/African-American</td>
<td>8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Not specified)</td>
<td>4%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mothers (n=50)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td>40.02</td>
<td>6.47</td>
<td>28</td>
<td>54</td>
</tr>
<tr>
<td>Education*</td>
<td>12.86</td>
<td>1.03</td>
<td>11</td>
<td>15</td>
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<tr>
<td>Race/ethnicity</td>
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<td></td>
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<tr>
<td>European-American/Caucasian</td>
<td>92%</td>
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<td></td>
</tr>
<tr>
<td>Black/African-American</td>
<td>8%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Mother education variable is coded so that
1 – 12 = 1st – 12th grade
13 = Some college
14 = B.A./B.S.
15 = some graduate/M.A./ M.S.
Table 2.

*Conceptual map of MPOS onto 5 conceptual dimensions of mindful parenting*

<table>
<thead>
<tr>
<th>MPOS Scale</th>
<th>Dimension of mindful parenting (Duncan et al., 2009a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Listening with Full Attention</td>
</tr>
<tr>
<td>Attentive Listening</td>
<td>X</td>
</tr>
<tr>
<td>Verbal Reciprocity</td>
<td>X</td>
</tr>
<tr>
<td>Openness/ Acceptance</td>
<td>X</td>
</tr>
<tr>
<td>Validation</td>
<td>X</td>
</tr>
<tr>
<td>Reactivity - Wait Time</td>
<td>X</td>
</tr>
<tr>
<td>-Emotional Valence</td>
<td>X</td>
</tr>
<tr>
<td>-Mother Intensity</td>
<td>X</td>
</tr>
<tr>
<td>-Referent Appropriateness</td>
<td>X</td>
</tr>
<tr>
<td>Contempt</td>
<td>X</td>
</tr>
<tr>
<td>Defensiveness</td>
<td>X</td>
</tr>
<tr>
<td>Affection</td>
<td>X</td>
</tr>
<tr>
<td>Emotion Speech, General [towards a) self; and b) youth]</td>
<td>X</td>
</tr>
<tr>
<td>Articulation of Present Emotion [towards a) self; and b) youth]</td>
<td>X</td>
</tr>
<tr>
<td>Compassion</td>
<td>X</td>
</tr>
</tbody>
</table>
Table 3

*MPOS Composite Scores Corresponding with 5 Conceptual Dimensions of Mindful Parenting*

<table>
<thead>
<tr>
<th>MPOS First-Order Composite Score Name</th>
<th>MPOS Scales Included</th>
<th>Standardized Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening with Full Attention</td>
<td>Attentive Listening; Verbal Reciprocity</td>
<td>0.68</td>
</tr>
<tr>
<td>Emotional Awareness</td>
<td>Emotion Speech, General: Self; Emotion Speech, General: Youth</td>
<td>0.57</td>
</tr>
<tr>
<td>Nonjudgmental Acceptance</td>
<td>Openness/Acceptance; Validation</td>
<td>0.68</td>
</tr>
<tr>
<td>Self Regulation in Parenting</td>
<td>Wait Time; Mother Intensity, Emotional Valence, Negative; Referent Appropriateness, Defensiveness</td>
<td>0.59</td>
</tr>
<tr>
<td>Compassion</td>
<td>Contempt, Affection, Compassion</td>
<td>0.66</td>
</tr>
</tbody>
</table>

Table 4

*IFIRS Composite Behavioral Interaction Scales*

<table>
<thead>
<tr>
<th>IFIRS Composite Score Name</th>
<th>IFIRS Scales Included</th>
<th>Standardized Alpha</th>
<th>Precedent in Prior Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hostility</td>
<td>HS, AC, AN, RH</td>
<td>.80</td>
<td>Harold et al., 1997</td>
</tr>
<tr>
<td>Nurturant/Involved Parenting</td>
<td>WM, PM, CO, PR, AR, LR, HS (r), AC (r), AN (r)</td>
<td>.66</td>
<td>Scaramella et al., 2002</td>
</tr>
<tr>
<td>Child Management</td>
<td>CD, CM, QT</td>
<td>.43</td>
<td>Scaramella et al., 1999</td>
</tr>
<tr>
<td>Supportive Parenting</td>
<td>WM, QT, PO</td>
<td>.76</td>
<td>Simmons et al., 1992</td>
</tr>
<tr>
<td>Warmth</td>
<td>WM, PR, LR, CO, AR</td>
<td>.93</td>
<td>Ge et al., 1996</td>
</tr>
</tbody>
</table>

*Note:* See Appendix B for IFIRS scale notation
Table 5

**Descriptive Statistics, percent agreements and Intraclass Correlation Coefficients for the MPOS**

<table>
<thead>
<tr>
<th>Scale</th>
<th>$M$</th>
<th>$SD$</th>
<th>% of Segments raters within 1 scale point of each other*</th>
<th>ICC (Shrout-Fleiss reliability: fixed set)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attentive Listening</td>
<td>3.01</td>
<td>0.81</td>
<td>100.00</td>
<td>0.68</td>
</tr>
<tr>
<td>Verbal Reciprocity</td>
<td>2.78</td>
<td>0.74</td>
<td>89.00</td>
<td>0.74</td>
</tr>
<tr>
<td>Validation</td>
<td>2.28</td>
<td>0.60</td>
<td>95.38</td>
<td>0.60</td>
</tr>
<tr>
<td>Openness/Acceptance</td>
<td>2.29</td>
<td>0.67</td>
<td>96.92</td>
<td>0.76</td>
</tr>
<tr>
<td>Wait Time</td>
<td>2.73</td>
<td>0.68</td>
<td>93.85</td>
<td>0.53</td>
</tr>
<tr>
<td>Mother Intensity</td>
<td>3.67</td>
<td>0.70</td>
<td>98.46</td>
<td>0.70</td>
</tr>
<tr>
<td>Emotional Valence: Positive</td>
<td>2.55</td>
<td>0.79</td>
<td>93.85</td>
<td>0.74</td>
</tr>
<tr>
<td>Emotional Valence: Negative**</td>
<td>4.17</td>
<td>0.72</td>
<td>92.31</td>
<td>0.69</td>
</tr>
<tr>
<td>Referent Appropriateness</td>
<td>4.31</td>
<td>0.39</td>
<td>92.31</td>
<td>0.69</td>
</tr>
<tr>
<td>Contempt**</td>
<td>4.71</td>
<td>0.52</td>
<td>98.46</td>
<td>0.89</td>
</tr>
<tr>
<td>Defensiveness**</td>
<td>4.83</td>
<td>0.26</td>
<td>95.38</td>
<td>0.58</td>
</tr>
<tr>
<td>Affection</td>
<td>1.98</td>
<td>0.70</td>
<td>93.85</td>
<td>0.72</td>
</tr>
<tr>
<td>Emotion Speech, General: Self</td>
<td>1.84</td>
<td>0.55</td>
<td>95.38</td>
<td>0.67</td>
</tr>
<tr>
<td>Emotion Speech, General: Youth</td>
<td>1.51</td>
<td>0.42</td>
<td>96.92</td>
<td>0.73</td>
</tr>
<tr>
<td>Articulation of Present Emotion: Self</td>
<td>1.03</td>
<td>0.12</td>
<td>100.00</td>
<td>0.99</td>
</tr>
<tr>
<td>Articulation of Present Emotion: Youth</td>
<td>1.01</td>
<td>0.04</td>
<td>100.00</td>
<td>0.99</td>
</tr>
<tr>
<td>Compassion</td>
<td>1.58</td>
<td>0.63</td>
<td>70.77</td>
<td>0.63</td>
</tr>
<tr>
<td>Youth Intensity</td>
<td>2.33</td>
<td>0.91</td>
<td>81.54</td>
<td>0.57</td>
</tr>
</tbody>
</table>

*Note:*

*R*eliability was computed across two observers rating independently

**Reverse coded so that higher scores equal higher mindful parenting
### Table 6

**Bivariate Correlations between Youth Outcomes and Demographics, IFIRS, and MP Self Report**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Poly-Substance Initiation</th>
<th>Youth Internalizing</th>
<th>Youth Externalizing</th>
<th>Youth Peer Pressure Resistance</th>
<th>Youth Global Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother Age</td>
<td>0.00</td>
<td>-0.20</td>
<td>-.30*</td>
<td>0.09</td>
<td>0.13</td>
</tr>
<tr>
<td>Youth Age</td>
<td>.38*</td>
<td>-0.01</td>
<td>.38*</td>
<td>-.50**</td>
<td>-0.06</td>
</tr>
<tr>
<td>Mother Education</td>
<td>-0.04</td>
<td>0.08</td>
<td>-0.04</td>
<td>0.10</td>
<td>-.15</td>
</tr>
<tr>
<td>Mother Race</td>
<td>0.17</td>
<td>-0.01</td>
<td>0.05</td>
<td>-0.17</td>
<td>0.20</td>
</tr>
<tr>
<td>Youth Race</td>
<td>0.21</td>
<td>-0.17</td>
<td>0.13</td>
<td>-0.18</td>
<td>0.05</td>
</tr>
<tr>
<td>Youth Gender</td>
<td>0.13</td>
<td>0.18</td>
<td>-0.02</td>
<td>-.29*</td>
<td>0.10</td>
</tr>
<tr>
<td>Mother Hostility</td>
<td>0.21</td>
<td>-0.17</td>
<td>0.11</td>
<td>-0.16</td>
<td>-0.17</td>
</tr>
<tr>
<td>Mother Nurturance/Involvement</td>
<td>-0.21</td>
<td>0.23</td>
<td>-0.17</td>
<td>0.13</td>
<td>0.19</td>
</tr>
<tr>
<td>Mother Child Management</td>
<td>-0.18</td>
<td>.30*</td>
<td>-.24†</td>
<td>.26†</td>
<td>0.10</td>
</tr>
<tr>
<td>Mother Supportive Parenting</td>
<td>-0.12</td>
<td>.28†</td>
<td>-0.21</td>
<td>0.12</td>
<td>0.18</td>
</tr>
<tr>
<td>Mother Warmth</td>
<td>-0.17</td>
<td>.26†</td>
<td>-0.21</td>
<td>0.12</td>
<td>0.18</td>
</tr>
<tr>
<td>MP Self-Report</td>
<td>-0.09</td>
<td>.27*</td>
<td>-0.16</td>
<td>0.14</td>
<td>0.04</td>
</tr>
</tbody>
</table>

†p < .10, *p < .05, **p < .001
Table 7

*Bivariate Correlations among MPOS Composite Scores*

<table>
<thead>
<tr>
<th></th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Listening with Full Attention</td>
<td></td>
<td></td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Emotional Awareness</td>
<td><strong>0.44</strong>*</td>
<td></td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Nonjudgmental Acceptance</td>
<td><strong>0.69</strong>*</td>
<td><strong>0.34</strong>*</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Self-Regulation in Parenting</td>
<td>-0.03</td>
<td>0.03</td>
<td>0.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Compassion</td>
<td><strong>0.44</strong>*</td>
<td><strong>0.40</strong>*</td>
<td><strong>0.64</strong>*</td>
<td><strong>0.39</strong>*</td>
<td></td>
</tr>
</tbody>
</table>

*p < .10.  *p < .05.  **p < .001
Table 8

**Bivariate Correlations between MPOS Composite Scores and Youth Outcomes**

<table>
<thead>
<tr>
<th></th>
<th>Poly-Substance Initiation</th>
<th>Youth Internalizing</th>
<th>Youth Externalizing</th>
<th>Youth Peer Pressure Resistance</th>
<th>Youth Global Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening with Full Attention</td>
<td>-.24</td>
<td>.21</td>
<td>-.24*</td>
<td>.26*</td>
<td>.16</td>
</tr>
<tr>
<td>Emotional Awareness</td>
<td>.01</td>
<td>.34*</td>
<td>.01</td>
<td>-.05</td>
<td>-.06</td>
</tr>
<tr>
<td>Nonjudgmental Acceptance</td>
<td>-.24</td>
<td>.23</td>
<td>-.27*</td>
<td>.26*</td>
<td>.19</td>
</tr>
<tr>
<td>Self-Regulation in Parenting</td>
<td>-.01</td>
<td>.21</td>
<td>-.02</td>
<td>.01</td>
<td>.23</td>
</tr>
<tr>
<td>Compassion</td>
<td>-.21</td>
<td>.45*</td>
<td>-.17</td>
<td>.30*</td>
<td>.14</td>
</tr>
<tr>
<td>MPComposite</td>
<td>-.23</td>
<td>.37*</td>
<td>-.23</td>
<td>.27*</td>
<td>0.15</td>
</tr>
</tbody>
</table>

* *p < .10.  *p < .05.  **p < .001
### Table 9

**Summary of Hierarchical Regression Analyses**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta (B)</th>
<th>SE B</th>
<th>Standardized Beta (β)</th>
<th>Total R²</th>
<th>ΔR²</th>
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</thead>
<tbody>
<tr>
<td><strong>Youth Global Competence</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Block 1 – Demographics</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Youth Age</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>.04</td>
<td>.04</td>
</tr>
<tr>
<td>Mother Race/Ethnicity</td>
<td>.68</td>
<td>.43</td>
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</tr>
<tr>
<td>(0 = Black, 1 = White)</td>
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<td></td>
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<tr>
<td>Youth Gender</td>
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<td>...</td>
<td>-.36</td>
<td>.19</td>
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<td>(0 = male, 1 = female)</td>
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<tr>
<td>Block 2 – IFIRS</td>
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<td>Child Management</td>
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<td>...</td>
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<td>.11</td>
<td>.10</td>
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<tr>
<td>Block 3 — MP Self Report</td>
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<td>.05</td>
<td>.01</td>
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<td>Block 4 — MPOS</td>
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<td>.18</td>
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<td>.25</td>
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<td>Post Hoc</td>
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<tr>
<td>Listening with Full Attention</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>.37</td>
<td>.13</td>
</tr>
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*Note. Only those demographic and IFIRS variables with a Bivariate correlation of \( r = .20 \) or higher with youth global competence were included in the model and are represented in the table.*

\(^{1}p < .10. \ *p < .05, \ **p < .001\)
Table 9, continued

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<tr>
<th>Variable</th>
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Note. Only those demographic and IFIRS variables with a Bivariate correlation of $r = .20$ or higher with youth externalizing behavior were included in the model and are represented in the table.

$^†p < .10$. $^*p < .05$, $^{**}p < .001$
Table 9, continued

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<td>.04</td>
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</tbody>
</table>

*Note.* Only those demographic and IFIRS variables with a Bivariate correlation of \( r = .20 \) or higher with youth poly-substance initiation were included in the model and are represented in the table.

\[ p < .10, \ *p < .05, \ **p < .001 \]
Endnote

1 In addition to running regression models with just those demographic and IFIRS controls that correlated with the given youth outcome at $r = .20$ or higher, each model was also run with all possible demographic and IFIRS covariates included. This was done to test for whether the presence of all possible controls reduced the statistical significance of the MPOS as predictors of youth outcomes. In all cases, the significance of the MPOS super-ordinate factor (MPComposite) and self-regulation in parenting either remained the same or increased. The predictive power of the MPComposite variable rose from a trend to statistical significance at the $p < .05$ level in the model for youth poly-substance initiation. Post hoc analyses with all controls included showed that the pattern of association among individual MPOS composites within the super-ordinate factor and youth outcomes did not change.
Appendix A

The Pennsylvania State University
College of Health and Human Development

MINDFUL PARENTING OBSERVATIONAL SCALES (MPOS)

Coding Manual
Mary H. Geier, J. Douglas Coatsworth, Christa Turksma & Mark T. Greenberg
The Pennsylvania State University

May 2012
Global Rating Scales for Mindful Parenting

I. Segment-based Scales

A) Task Card Code

**DIRECTIONS:** Before rating each 3-minute segment\(^1\) on the scales in Section B (below), watch the entire 3-minute segment and record the task card(s) used during that particular segment.

B) Global Scales

**DIRECTIONS:** Watch the entire 3-minute segment at least twice before beginning to rate that segment on the following 12 scales. Continue watching and re-watching the segment as you decide on ratings.

1. **Attentive Listening (Present-Centered Attention)**

   **Description:**
   This scale rates the extent to which mothers have an attentive presence when interacting with their youth during the segment. It reflects how well mothers are able to resist internal and external distractions and instead be fully present with their youth and focused on him or her. The verbal and nonverbal behaviors of mothers high in Attentive Listening indicate a marked quality of focused attention on their youth. They orient their bodies and faces towards their youth, listen intently, and rarely interrupt. This focused attention and presence (or lack thereof) is a critical component of Attentive Listening. It involves the degree to which mothers take an active role in paying close attention to their youth’s verbal and nonverbal behaviors, as well as in being fully present with them. See the lists below for more detailed indicators and counter-indicators of this quality.

   **Rating Tip:**
   Watching the segment at 2x the normal speed (i.e. fast-forward) or without sound (volume on mute) can help the rater pick out patterns or changes in parent body language and facial expression which are indicative of attentive listening.

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\(^1\)This rating scheme is interval in nature. Observations are divided into 3 minute segments, and ratings are made based on participant behaviors during that discrete 3-minute segment. The dyadic interaction task included in the PROSPER assessment is 15 minutes in length; therefore, each observation is divided into 5 segments. Ratings are made on all “Segment-based Scales” for each of the 5 segments.
Behaviors indicative of HIGH Attentive Listening include:

- Body posture open to and oriented towards youth—shoulders and chest are facing the direction of the youth, perhaps leaning in slightly towards youth
  - To the extent allowed by the task, so this can be subtle but it should be clear
- Coordination of parent-youth body movements—indicative of interest in what youth saying
- Remaining silent while youth speaking
- Face turned towards youth
- Eye contact
- Direct gaze
- Focused attention on youth
- Clarifying, by either restating what youth has said or asking a question to better understand youth’s meaning
- Back channels and paralinguistic indicators that mothers is listening (nodding, smiling, saying “mhmm”)
  - Back channels/paralinguistics may be a useful sign that mom is high in attentive listening, but they are not necessary for receiving high attentive listening scores
- Asking questions to prompt youth and encourage further disclosure and conversation
  - Use of “simple questions”
    - E.g. “Tell me more…”
  - Asking questions in this way may be a useful sign that mom is high in attentive listening, but it is not necessary for her to prompt youth in this way in order to receive a high attentive listening score

Behaviors indicative of LOW Attentive Listening include:

- When youth is speaking, mother’s nonverbal and verbal behavior indicates that she is over-focused on or preoccupied with her own internal processing of a question or topic
- Mother jumps ahead of youth and starts talking or answers a question before youth is finished talking
- Mother asks “What did you say?” or “Huh?” after youth says something because she “tuned out” for a period
- Any type of self-distracting behavior. Examples include:
  - Fiddling with hands or playing with hair or jewelry; shuffling cards or other objects when youth is speaking
- Behaviors indicative of preoccupation, boredom, or disinterest
  - Rubbing eyes, yawning, etc.
- Body posture closed and shifted away from youth
- Turning face away from youth; placing face in hands
- Lack of eye-contact, or active avoidance of eye contact
- Verbally interrupting youth—stronger than just interjecting with a quick comment
- Mishearing or misinterpreting something that the youth says, as a result of not paying attention (not because youth isn’t speaking clearly)
- Any evidence that parent attention is focused on something else
This may come out when experimenter re-enters room; if the youth is presently engaged in saying something, do the parents continue to listen (or gently move the conversation towards completion), or do they abruptly turn away from youth and attend to the experimenter? If the latter, parents may receive lower Attentive Listening scores.

Also pay attention to how mothers respond to background noise or behavior coming from sources such as pets, other children in the home, the phone ringing, etc. The way in which mother handles these types of potential distractions can provide insight into the degree to which she is present with her youth.

Response Scale:
1 – Low
Mother makes little or no eye contact with youth throughout segment, and does not orient her body and face towards youth (sits parallel or facing away). She may often engage in self-distracting behaviors, especially when youth is speaking. She may seem preoccupied or just uninterested. There are little or no paralinguistic or verbal indicators (i.e. nodding, restating) that would suggest she is truly concerned with the meaning behind what youth is saying. Clearly, mother is not fully present with her youth throughout the segment, and does not appear to be paying close attention to him or her.

2—
3 – Medium
Mother either A) engages in behavior consistent with Attentive Listening approximately half of the time: e.g. makes eye contact and orients body/face towards youth off and on (for about half of total segment time); occasionally engages in self-distracting behavior; instances of presence and non-presence alike; OR B) displays a concurrent mixture of behaviors both consistent and inconsistent with Attentive Listening throughout the interaction.

4—
5 – High
Mother is fully present with her youth throughout all or almost all of the entire segment. She observes youth with a quality of focused attention that is highly pronounced. Mother’s focus must be relaxed instead of intrusive. She maintains eye contact and body/face orientation towards youth for almost the entire segment. There is little or no engagement in self-distracting behaviors.

There may be frequent use of paralinguistic and verbal indicators that mother is listening to youth and focused on what youth is saying. However, these behaviors are not requisites for receiving a “5.” Mothers who do not use many paralinguistics can still receive a “5” if their quality of attention is highly focused and they exude a clear presence with their youth.

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2 See segments 1, 2, 3 of ID 126-2047 for an example of the quality of focused attention and presence necessary for a “5” rating.

3 113-2045 is an excellent example of focused attention (a “5”) without paralinguistics.
2. Verbal Reciprocity

Description:
This scale addresses the “flow” or “back-and-forth” of the interaction. There are two key components of this rating:

1) **Correspondence and continuity**: There is correspondence and continuity in mother’s responses to youth when youth says something to her throughout the segment. Mothers are adept in maintaining continuity of subject and conversational flow. Mothers’ responses correspond with what youth said previously: they follow a logical order, reflecting consideration of what their youth has just said. The overall tempo of the interaction is appropriate: mothers and youth move through the question prompt cards at a similar pace—there is a sense of mutual agreement regarding how thoroughly and quickly the dyad moves through the cards.

Along with surface level correspondence, the responses of mothers high in verbal reciprocity display a **deeper continuity** with what the youth is saying to her. Importantly, mothers’ responses match the core message (the deeper meaning) that youth is conveying. For example, when youth says “we had to dissect a frog in biology and it was eww, so yucky,” a high verbal reciprocity response would build on youth’s message about the unpleasantness of dissecting a frog (e.g. “wow, that would be really gross—how’d you do it?”). A low verbal reciprocity response would be more tangential and unrelated (e.g. “biology? I thought that was for your life sciences class last year?”)

Additionally, mothers high in verbal reciprocity do not change the subject abruptly or bring up things unrelated to the present course of conversation. They do not ignore their youth. When topics do change, the transitions are smooth and natural.

Related behaviors that would lower mother’s score include lecturing and going off on a tangent—both of these interrupt the back-and-forth or give-and-take that is central to high scores on this rating.

Also, if mother responds to the youth or says something which causes an abrupt shift in the pace of conversation or results in an awkward pause, then this could lower her score as well.

There is reciprocity of speech between mother and youth—mother **responds** to what youth says; they do not speak at each other in a way that is “parallel” instead of “back-and-forth”.

The pace at which the dyad moves through the discussion prompt cards can provide insight into verbal reciprocity. Mothers low on this scale may move through the cards at a rate slower or faster than what youth clearly wants to.

When a mother is low in Verbal Reciprocity, there may be a sense that she is “jumping all over the place” or engaging in speech similar to free association.
2) **Participation and exchange of information**: Mothers high in verbal reciprocity actively and willingly participate in dialogue with their youth. Typically, this takes the form of actively eliciting or “pulling” for information from their youth (mothers go beyond merely listening to what youth says). This can be seen in such behaviors as asking follow-up questions to what youth says; soliciting youth input and feedback (e.g. asking for his or her opinion on things); and/or making statements that build off of what youth said previously, thus moving the conversation forward.

Importantly, the type of back-and-forth or exchange of information that characterizes mothers high in verbal reciprocity serves to create a deeper connection between mother and youth than what would be forged by mothers merely expressing surface-level agreement with youth throughout the segment.

To receive the highest score of verbal reciprocity (a “5”), mothers must sufficiently demonstrate both of the components listed above in their interactions with their youth.

**Response Scale:**

1. **Low**
   This rating may manifest in two main ways:
   
   A) Throughout the segment, mother shows low degrees of each component of verbal reciprocity listed above. There is little correspondence between what she and youth are saying, a “disconnect.” They may seem to be speaking “in parallel” to each other instead of converging on the same underlying meaning or purpose of a conversation. Additionally, mothers are minimally responsive and rarely take the initiative in gaining new information from their youth.

   B) There are discrete instances (maybe one or two) in which verbal reciprocity is clearly very low (matching the description in part A). At other points in the segment, though, mother may engage with youth in interactions that do appear reciprocal. However, the instances of low verbal reciprocity are so striking that they are strong enough to pull mother’s overall score down to a “1.”

2. **Medium**
   Mothers may show behavior consistent with one (but not both) of the components of verbal reciprocity (1. correspondence and continuity; or 2. participation and exchange of information). Or alternately, she may show some indication of each component, but those behaviors are not strong enough to be characteristic of her interaction as a whole.

   For example, the conversation between mother and youth may follow a logical order, with mother being quite attentive to youth; however, she may not go that extra step in actively seeking out information from the youth.

   There may be moderate correspondence between parent and youth speech acts, with instances of disconnected speech balanced by episodes in which parent and youth are clearly engaged in a reciprocal interaction. The following may also occur: mother may change the subject before youth is ready to move on, or she may wish to progress through the cards at a different pace than youth would prefer.

4—
5 – High

Mothers’ behavior strongly endorses both components of verbal reciprocity described above. There is a high degree of correspondence between mother and youth speech acts. Mother responses reflect consideration of youth’s statement and “build” off of that. Topic of conversation flows naturally—mother does not abruptly change the subject. Mother rarely ignores youth comments (aside from things that are clearly “silliness” on the part of the youth). Mothers and youth have reached a consensus (implicit or explicit) on how quickly they move through cards.

Additionally, mother is a willing and active participant in conversation with her youth: there is a clear exchange of information between them, with mother demonstrating follow-up questions or other behaviors that elicit youth input and help her to better understand her youth. There is a deeper connection between the dyad forged by the “back-and-forth” or “give-and-take” of informational exchange.

3. Validation:

Description:

The function of validation is to communicate true and genuine understanding of something said or felt by one’s child in the present moment.

Common indicators of validation include the following4:

- **Back channels**
  - Behaviors that indicate attentive and affirming listening
  - Paralinguistic and physical cues such as nods, “uh-huhs” or other physical and vocal assenting behaviors
  - Typically accompanied by eye contact

- **Direct, explicit expressions of understanding or agreement**
  - “I agree,” or “that’s a very good point”
  - “Yes, you did very well in track.”
  - “I hear you”

- **Paraphrasing**
  - Individuals repeat back what their partners have told them, usually verbatim, but sometimes in a slightly altered style
  - Example: After youth explains that she thinks mom’s rules are fair, mom responds, “So you think the rules are fair.”

- **Apologies**

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- **Sentence Finishing**
  - Individuals place endings on the sentences their partners have begun
  - Functions to let partner know that both individuals are “on the same page”
  - This indicator must be accompanied by positive affect in order to be considered validating

- Head nods, eye contact, non-confrontational voice tone

**Counter-indicators (or “false indicators”) of validation**:  
- **Lack of Eye contact when “back channeling”** (see description of back channels above)  
  - Indicates back channels being offered are insincere, as in humoring.
  - Can also be associated with sarcastic behavior

- **Bobbing heads**
  - Head nods that appear so automatic and repetitive that they essentially become meaningless
  - Can also be a sign of exasperation, nonverbal request to “shut-up”

- **Interruption**
  - If sentence finishing is abrupt or is delivered with negative affect, it is likely nothing more than an interruption related to domineering, defensiveness, or other negative affective behaviors

**Importantly**, in any given interaction, mothers’ validating behavior can be directed towards youth statement of factual content, towards youth opinions, or towards youth’s emotional experience, each of which signifies a qualitatively different depth (or strength) of validation. Consequently this scale is built on the premise that there are **three different levels** of validation. **When making ratings on this scale, the rater MUST take into account the level at which mother’s validating behavior falls (see the descriptions below and the response scale descriptors for guidance).** The three levels of validation are:

- **Level 1: Validation of Factual Content** (lowest, least powerful)  
  - Parent agrees with youth statement of fact
  - Back channels (such as head nods, verbalizations such as “mhmm” and “right”), vocal tone, and eye contact can function at this level of validation, but they must be used in a way that conveys genuine validation of youth in order to “count” for this level
    - Instances in which mother is just trying to “hurry child along” or move interaction forward should not count here
  - Example dialogue of validation of factual information:
    - Youth: “Mom and I go shopping together…and we went to the water park that once”
    - Mom (nodding while youth speaks): “Yeah, we did go…that was cool.”
Typically, mothers who only display validation of factual information should **score in the 2-3 range**. They cannot receive higher than a 3 rating.

**Level 2: Validation of Opinion or Subjective Experience:**
- By validation of “subjective experience,” we are referring to a type of validation in which mother expresses her understanding of youth’s subjective **cognitive** experience
  - Her validating behavior is at the cognitive level; it is not directed at emotion
- Parent acknowledges, accepts, or agrees with youth’s opinion or wishes (stated desires)
  - Example dialogue:
    - Youth: “I wish someone in our family was a NBA player…then we’d be rich and be able to get whatever we wanted”
    - Mom: “Yeah, it would be nice to have more money”
- There could be explicit agreement with youth opinions, but this isn’t necessary
  - Example dialogue that would count at Level 2:
    - Mom: “I’d like to go to the zoo on Saturday”
    - Youth: “Mmm…I’d like to go to the pool”
    - Mom: “Oh, you’d like to go to the pool more than the zoo? We can think about doing that.”

Typically, mothers who show validation of youth opinions should **score in the 3-4 range**.

- **Directness** of expression of validation is an important qualifier

**Level 3: Validation of Emotional Experience** (most powerful):
- True, deep validation of the emotion underlying what youth is saying to her. Mother’s response should **explicitly** recognize or connect with youth expression of emotional experience. This can include
  - Mother identifies youth emotion or helps youth label how he/she is feeling (through prompting, asking questions)
    - “It sounds like you are really feeling _____”
    - “It sounds like _____ is really important to you”
  - Agreeing with youth emotion or empathizing with him/her
    - “I would feel the same way”
  - Genuine, direct apologies made to the youth
- Mother doesn’t necessarily have to explicitly name the actual emotion word that describes youth’s feeling, but her statement needs to connect with him/her at that deeper level
  - For example, saying things like:
    - “I hear you”
    - “That hurts”
    - “That’s no fun”
    - “Wow, that’s a lot to deal with”
Example dialogue:
- Youth: “When Samantha moved away in September, that was the most difficult because all of a sudden my best friend was just gone”
- Mom: “Yeah, I would be really upset about that, too”

Example dialogue:
- Youth: “It was really cool to get to go to Philadelphia with my class—we got to go to the liberty bell and walk around downtown and then by the river”
- Mom: “That’s great—so you really had a lot of fun on that trip, huh?”

Example dialogue:
- Youth: “I hated having to ride the bus this year…all the little kids were so annoying”
- Mom: “Yeah, I can see how that would be really frustrating”

Typically, mothers who show validation of emotional experience should score in the 4-5 range
- Directness of expression of validation is an important qualifier here

Response Scale:
1—None
There are no indices of validation as described above—at any level—throughout the entire segment. Mother consistently responds to youth in a way that is either 1) simply lacking in any of the indicators of validation as described above; or 2) overtly rejecting, judgmental or dismissive. To emphasize, mother does not necessarily need to be rejecting or invalidating of her youth to receive this rating—her behavior may just lack the positive indicators of validation.

2—

3—Moderate
One way in which this rating can apply is that, throughout the segment, mother shows a moderate to high amount of validation of factual content. Importantly, mothers who show only validation of factual content (the lowest level) cannot receive higher than a 3 rating.

This rating can also be given if there is at least one instance in which mother directly and clearly validates youth opinion. In this case she should receive at least a 3 rating.

4—

5—High
At least once, mother validates youth emotional experience. Mothers should receive a 5 only if they show this deepest level of validation.
4. Openness/Acceptance

Description:

In short, this scale measures: A) the degree to which mother is open and accepting—with low levels of judgment—towards youth’s opinions/thoughts, attitudes, behavior, attributes, and emotions; and B) the degree to which mother actively attempts to understand the youth (how “curious” she is about youth’s experience).

Openness and acceptance (O/A) reflects a stance taken by the mother that communicates a respectful interest in and support for the youth’s thoughts, behaviors, attributes, or feelings. Acceptance is more than just agreement; rather, it reflects a fuller process of her attempt to understand the youth’s experiences and to communicate in a way that acknowledges and validates the youth’s individuality. Acceptance and Openness comes without (or with low amounts of) evaluation or judgment of the youth’s internal and external experiences. This aspect of mindful parenting is evident in both verbal and nonverbal behaviors.

Importantly, in order to receive the highest rating on O/A (a “5”) mothers must go beyond simply agreeing with what their youth are saying. Their behavior must reflect a stance of curiosity towards the youth’s cognitive, emotional, and/or behavioral experience; in other words, mothers appear actively interested in their child. Mothers high in O/A attempt to understand their child’s experience, whether it be what the youth is experiencing “in-the-moment” or a past experience (emotional or cognitive) that the youth is describing. See the list of behavioral indices of high O/A for examples of how this “curiosity” towards youth experience may manifest.

One important point regarding lack of Openness/Acceptance deserves mention here (please see below for a more detailed description of counter-indicators of O/A). Sometimes, low O/A will appear very active: mothers may be rejecting (over-riding or overtly dismissive) or attach some evaluation or judgment to youths’ experience (i.e. their emotional, behavior or verbal expressions). At other points, however, low O/A will take a more passive form. In these cases, mothers miss opportunities to connect with their youth on a deeper emotional level; their responses to youth go no further than surface-level agreement or acknowledgment. This is likely due to that lack of “curiosity” about their youth. Put another way, mothers lack a clear interest in their youth’s cognitive, behavioral, and emotional experience or desire to understand it. It follows, then, that mothers that fit this description lack a true openness to the youth’s experience.

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5 The degree to which mothers are open and accepting of youth emotion is less important for this rating than mothers openness/acceptance toward youth thoughts and behaviors (either in the present moment, or more global ways of acting and being). Parent tolerance and openness towards youth emotional experience—particularly negative emotional experience—is a specific focus of the Compassion scale.
Behaviors indicative of HIGH parent Openness/Acceptance include:

- **Empathic acceptance and recognition of youth’s attributes, traits, behaviors, thoughts and feelings** and validation of these\(^6\), independent of agreement
  - This may be verbal or nonverbal
    - An example of a nonverbal expression of this type of acceptance would be when mom laughs when youth makes a joke and also laughs, even if the joke side-tracks the conversation or wasn’t what mom was expecting or wanting to hear
    - Empathic perspective taking: attempting to see things from youth’s point of view in order to understand what youth is going through or experiencing
  - **Connection to youth’s statement of emotional experiences**
    - Mother follows up youth expression of positive or negative emotion with questions or comments designed to find out more about why youth is feeling that way
  - **Non-directive questioning**
    - Inviting reflections about the youth’s experience
    - Asking for more information or for youth’s opinion, thoughts, or feelings in a manner that is non-lecturing and non-leading
      - Mothers ask questions for the purpose of gaining a fuller understanding of youth experience (as opposed to asking leading questions to reinforce a lesson on her agenda).
      - In other words, if/when mom asks youth questions, is the purpose to understand youth (out of curiosity), or is it to direct or control youth in some way?
    - Importantly, the presence of this behavior is NOT required for a 4 or 5 rating of Openness/Acceptance
      - The quality of eliciting information from youth is most indicative for the construct of Verbal Reciprocity
      - This behavior is included in the description of O/A because non-directive questioning is indeed an indicator of an open and accepting stance towards the youth. The point is that it is not required for a mom to be determined open and accepting.
  - **Verbally reflecting on what youth says or does** (“describing”)
  - **Allowing expressions of adolescent individuality to emerge**
    - (Given that youth expressions of individuality fall within the limits of what is socially acceptable)

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\(^6\) Youth’s thoughts and feelings, specifically, can be expressed verbally and nonverbally, or inferred by the parent
Teens can express their individuality in ways that are verbal (stating thoughts, opinions, jokes) and nonverbal (expressions of emotion and other messages expressed through body language—see next bullet point for more info on this).

- **Tolerates youth emotional displays**
  - The significance of this behavior for coming to a rating decision depends on the valence (pos/neg) and intensities (lo/med/hi) of youth emotional display
  - Accepting of negativity: allows child to express negative affect or verbal content without immediately trying to redirect or change
  - Sometimes, parents try to smooth over or “fix” things anytime their youth expresses negative-valenced emotion, even if it’s at a relatively low level. If a parent behaves in this way, ratings should be adjusted downwards accordingly
    - Example scenario: A youth expresses mild discouragement because her older sister doesn’t want to hang out with her.
    - Example of a “5” response: Mother listens intently and somehow communicates to youth that she understands how it would be hard to be treated this way. Mom is able to be with the negative emotion expressed by her youth, and doesn’t immediately try to change it
      - Mom does not try to justify or “explain away” the older sister’s behavior in order to smooth over the negative emotion expressed by target youth
    - Counter-example (something that would earn lower than a “5” response): Mom jumps in to an explanation of why the older sister is acting in the way she is

- **Giving youth the opportunity to speak or express their feelings**
  - For example, when youth has a “Youth” question card, parent allows youth to think and answer question first without jumping in and answering first themselves
  - Parent does not project his/her own emotions onto youth

- **Parents “check-in” with child to make sure they understand the youth’s perspective** (i.e. that they are interpreting youth’s emotions, opinions, attitudes, etc. correctly)

- **Giving youth credit for truth underlying what he/she is saying**

- **In general, allowing the interaction and information conveyed therein come from the youth;**
  - mother is not solely driving the whole interaction
  - mother does not tell youth (explicitly or implicitly) how s/he should feel/think/behave
  - High levels of O/A involve giving youth “space,” allowing him/her the developmentally appropriate levels of autonomy that are necessary for optimal development
Behaviors indicative of LOW parent Openness/Acceptance include:

- **Ego attachment to youth statements or emotional displays**
  - Mom’s behavior reflects that she is concerned with how her youth’s verbal and nonverbal expressions reflect on herself
  - Openness/Acceptance is about allowing expressions of adolescent individuality

- **Parent takes control of topic away from youth too early** (youth not done speaking, expressing self)
  - Parent becomes the one driving the conversation
  - Can involve over-riding what youth says

- **Denying/Avoiding emotionally charged topics**
  - Must be an active, overt dismissal to “count” as an indicator for low O/A
    - E.g. “I don’t want to talk about this now.”
      - “You are making this a bigger deal than it should be”
    - Can take the form of changing subject abruptly to avoid uncomfortable interchanges
  - This behavior may be due to:
    - Unwillingness to deal with strong emotion or
    - Discomfort with or inability to tolerate negative affective displays

- **Dismissiveness**

- **Mother takes things at face value, and accepts what is. She doesn’t pull for the deeper meaning underlying what youth is saying**
  - Mother does not follow-up youth expressions of positive or negative emotions with questions or statements to understand more clearly why youth is feeling that way
  - She seems to lack a desire to connect with youth emotional or cognitive experience; in other words, mother is not open to understanding her youth in this deeper way
  - Does not seem to possess a curiosity for youth experience
  - Behavior fitting this description is consistent with a “3” rating

- **Mother is self-oriented in her interactions with youth (her focus is on herself)**

- **Directive Questioning**
  - When mothers ask questions of the youth, they do so for the sake of lecturing or correcting in order to reinforce a message or lesson that they want the youth to get.
    - e.g. leading questions

- **Directive-ness, in general**
  - Mother is the one “driving” the interaction
  - Can come through in verbal and nonverbal behaviors
  - Example: Mother says “go ahead” each time a Youth question card comes up, directing youth that it’s her turn to speak
• Attaching some degree of evaluation or judgment to youth interests, behavior, and/or emotional and verbal expressions
  o Can be evidenced in mother’s facial expressions, tone of voice, body language, and speech content
  o Examples:
    ▪ Mom indicates her belief that youth involvement or interest in a given activity is frivolous or unimportant
    ▪ Mom responds with a look of exaggerated, feigned surprise when youth says that he thinks her rules are fair
    ▪ In response to youth saying that he would like to “get outside more,” mother responds, “why don’t you?” in a somewhat hostile and accusatory tone which implies that he shouldn’t be having difficulty with this issue

• Invalidating Statements
  o When mom says things that directly oppose, undermine, reject, or discount what the youth has just said or done
  o Example. “No, you didn’t!”
    ▪ Youth: “I didn’t know that I was supposed to do that”
    ▪ Mother: “Well, this is something that your father and I shouldn’t have to tell you to do”

• Verbal control
  o Persuasion, advising, and attempts to change youth behavior
  o Interrupting, dismissiveness, lecturing, coercion

• Nonverbal or physical control
  o Silencing
    ▪ A “look” meant to shut down youth verbal or emotional expressions
  o Grabbing or shifting cards from youth
  o Attempts to control youth’s movements. Examples:
    ▪ Holding or moving youth’s hands or arms down
    ▪ Grabbing youth by the arm to pull him into the camera frame
  o Smoothing or shifting youth hair (in a way that does not serve the purpose of or convey affection)
  o Straightening youth clothes, fixing a collar, etc.

Response Scale:
1 – Low
Mothers who are low on openness/acceptance appear to lack curiosity about their youth or a desire to find out more about youth experience. They show little to no endorsement of youth emotional, behavioral, or verbal expressions (minimal surface-level agreement).

Mothers may interject or project onto the youth their own beliefs, needs, or desires for the youth. Furthermore, this is done in a way which communicates that the mother wants the youth to “Be” a certain
way that he or she is not. It is common for mother to interrupt youth before youth is finished speaking or dismiss youths’ feelings or point of view. Self-oriented concerns predominate. Mother seems unconcerned with or actively negates youth experience.

Mothers may frequently dismiss or override what youth says or does in the course of conversation. The conversation may strongly reflect her efforts to control the youth’s behavior, which is evidenced in efforts to persuade, or advise, or change youth behavior, thoughts or emotions.

2—

3—Medium

This rating can take different forms. For instance, mother may seem interested in youth’s experiences, feelings and thoughts, but she may also interject her own interpretations of those experiences. This may be reflected in occasional dismissive statements (some examples would be: “You don’t dislike that?” “Oh, stop;” “How can you feel that way?”), or in a pattern of interruptions by mother to make her point known. Some of the statements the mother makes have a tone of evaluation of the youth experience rather than an effort to understand.

Alternately, mothers may agree with youth experiences, feelings, and thoughts, although this agreement remains at the surface level. She does not attempt to come to a deeper understanding of youth (i.e. she shows little curiosity or desire to explore and connect with youth experience). Because of this, she lacks a true openness to the youth’s emotional or cognitive experience. There are “missed opportunities.”

Also, mothers may receive “3” ratings if they show a mixture of low and high indicators of O/A.

4—

5 – High

When applicable, mother is actively engaged in trying to understand her youth’s experience (when applicable given the context of the interaction). She likely asks non-judgmental open-ended questions about youth experiences and thoughts in an effort to understand. Indeed, in order to receive this rating, mothers must go beyond simple surface-level agreement with what youth says or does.

Additionally, mother frequently acknowledges and validates the youth’s thoughts and emotional experiences and does very little judgmental evaluation of them. She rarely provides evaluation (positive or negative), and instead the conversation is characterized by A) asking for more information, inviting reflections about the youth experience (“What did you think when John said that?”); or B) describing (“So then you went to Bill’s house”) in an effort to accurately connect with the youth’s experience. Mother is respectful and clearly interested in youth’s point of view. In other words, that curiosity and openness to exploring youth emotional, behavioral, and cognitive experience is clearly there.

7 For instance, in a segment in which most of the interaction is dominated by youth describing in detail his accomplishments over the past year and how he feels about them, there may not be much for mom to “explore” because she already “gets” the youth experience based on what the youth is saying out of his own initiative. In an instance like this, it may even look artificial if mother were to ask for more information or his feelings about something (since he would have already stated it). So, not exploring in this way (in this context) should NOT count against mother’s O/A score.
5. Reactivity

General Description:

At its core, mindful parenting is characterized by low parent reactivity to statements or behaviors by their youth. **These can be behaviors that are happening in the present segment, or behaviors that have happened in the past** (ranging from previous segments to instances occurring at some point in time before the observed interaction task. In these cases, it may even be something “brought up” or brought into the present conversation by the parent).

Two general notes regarding maternal reactivity are in order: First, high reactivity can be expressed in the form of positive or negative emotion, and the intensity of that emotion can range from quite low to very high. Second, the behaviors or statements by a youth that elicit maternal reactivity do not necessarily have to be negative (in either content or affective tone). It just has to be something that arouses an impulse to react in the parent.

In rating Reactivity, **focus specifically on mothers’ responses to their adolescent’s statements or behaviors.** Ratings should reflect mothers’ overall reactivity to the various youth statements/behaviors that occur throughout the segment.

**For this scale, the coder will make ratings on FOUR Subscales:**

**MOTHER**

1) **Wait Time**
2) **Emotional Valence**
3) **Intensity**
4) **Referent Appropriateness**

**Rating 1: Wait Time**

Mindful parenting involves taking time to pause before reacting in order to respond to the youth in a way that is child-oriented and emotionally attuned, thus opening up the conversation for further exploration of the youth’s present or past experience. Mothers high in mindful parenting go beyond merely “reacting” to their youth; they **respond** (which requires some level of thoughtful consideration of what youth have said or done).

Thus, this subscale focuses on how immediately mothers react to what youth says or does (the relative length of time between when youth stops talking and mother starts talking). Its purpose is to capture the extent to which mothers pause and reflect on what their youth has expressed before reacting to it. It focuses exclusively on the relative time-lag between when youth stops talking (or is cut off from talking) and mother starts talking.

Another important component of Wait Time is mother’s level of energy or urgency to respond in that space in which her youth has the floor and she isn’t talking. With mothers who receive a “1” or “2” on this scale, there is often a noticeable “press” to respond to the youth—a need to interject—that can be sensed by the rater. In contrast, mothers who receive a “4” or “5” do not show that same urgency or need to interject; they are able to wait with patience, attention, and calm.

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8 The “Stop” in *Stop, Be Calm, Be Present*
Rating Tips:

Oftentimes, paying attention to shifts in the pacing of conversation will be of help in rating Wait Time. Slowing of pace—especially if initiated by mother—will often indicate that mother is taking time to reflect on what youth has said or done before responding to it.

Additionally, pay close attention to the timing between youth statement and mother response when youth offers something that the parent did not expect or does not want to hear (it may appear notably provocative, but does not necessarily have to be). Compare timing in these instances to instances when interaction is positive and benign and centered on non-threatening topics. How often does the parent interrupt the youth or talk over him/her?

Also, there will be times when mothers do not respond at all to youth statements (for example, mom listens to youth give an answer and then turns over the next card without saying anything when the youth is finished). In deciding on a rating for Wait Time, weigh the frequency with which these instances occur with those instances in which mother does respond to youth.

Response Scale

1—Low

Mother rarely takes time to pause, reflect, and/or plan before reacting to youth verbalizations or expression of emotion. Her responses follow almost immediately upon what youth has said previously, with a minimal time lapse between when youth stops talking and mother begins. There is that “press” to respond described above.

Mother may cut in over youth at times, and her reactions to youth may seem instinctive and instantaneous (or “knee-jerk”). There are little or no observable instances in which the pacing of conversation slows. Instead, mothers may accelerate the pace of the conversation through the quickness of their reactions to youth.

Importantly, low levels of Wait Time can be of high or low emotional valence—what is important is that the time interval between youth expression and mother response is so notably small. Also, mothers’ quick responses may appear to be a reaction to adolescent behavior OR to their own internal processing of that behavior. For example, a mother’s reaction to an adolescent’s statement that he is angry that she did not allow him to do something may be about that mother’s own anger over the situation.

2—

3—Moderate

Mother’s Wait Time may consistently seem to be in the mid-range. The time lapse between youth speech and mother response is moderate: on the whole, her responses do not immediately follow those of youth’s. However, she does not pause long enough or seem to reflect as much before answering as those mothers who would receive a “4” or “5” rating. Still, in general there is a noticeable time lapse between when youth stops talking and mother starts.

There does not seem to be that “press” or need to interject when youth is speaking. Also, mother’s wait time may seem more passive, and to be mainly the result of her lack of attention due to disengagement from or disinterest in the task (as opposed to an active and deliberate effort to wait, reflect, and then respond). If it is not clear, on the whole, whether her delay in response is due to a lack of attention or a genuine attempt to stop and reflect before responding, then she should receive no higher than a 3.
Alternately, there may also be a mixture of high and low wait times. There may be times when the pacing of conversation slows, indicating that mother is likely reflecting on what youth has said before responding. However, these instances do not occur often enough to be representative of her wait time behavior as a whole.

**Rating 2: Emotional Valence**

There are two emotional valence subscales: one that measures the frequency of positive emotion/affect in mother’s responses to youth, and one that measures the frequency of negative emotion/affect in mother’s responses to youth. By frequency, we mean the amount or proportion of mother’s responses that are characterized by either positive or negative indices of emotion. Emotion can be expressed both verbally and nonverbally: as such, in making ratings for these scales, pay attention to mother’s body language, vocal tone and pitch, facial expressions, and speech content.

Importantly, this scale is separate from Emotional Intensity—it does not take into account how strong or intense mother’s emotional displays are. It is solely concerned with how often she displays positive affect and how often she displays negative affect, of any strength or magnitude.

**Rating Tips:**

Watching the segment at 2x the normal speed (i.e. fast-forward) or without sound (volume on mute) can help you pick out patterns or changes in parent body language and facial expression indicative of attentive listening.

Refer to the “Instructions for Coding Affect” in the Appendix section of this manual for guidance.

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9 From the LIFE coding system (Hops, Biglan, Longoria, Tolman, & Arthur, 2003)
A) Positive Emotionality

Description:
This rating measures the frequency of positive affect in mother’s responses to youth throughout the segment. Below are some common ways in which positive emotion can be expressed:

- Nonverbals, body language, facial expressions
  - Smiling, happy eyes, raised cheeks, lips apart or together and turned up, affectionate contact, etc
- Tone and pitch of voice
  - Warm
  - Conveys happiness, excitement, approval, or encouragement, etc
- Emotionally-relevant speech content
  - Speech content that clearly conveys love, affection, caring, happiness

Response Scale
1—Low
Mother displays low levels of positive affect in her responses to youth. There are little to no indicators of positive emotionality in how she responds to youth throughout the segment.

2—
3—Moderate
The degree of positive emotionality in mother’s responses to youth throughout the segment is in the mid-range. About half of the time, mother’s responses to youth contain one or more of the indicators of positive emotionality described above.

4—
5—High
Mother displays high levels of positive affect in her responses to youth. Most to all of her responses can be characterized by at least one of the indicators of positive emotionality described above.

B) Negative Emotionality

Description:
This scale measures the frequency of negative affect in mother’s responses to youth throughout the segment. Below are some ways in which negative emotion is commonly expressed:

- Nonverbals/body language/facial expressions
  - Lowered brows, tensed jaw, clenched teeth, lips pressed together, frowning
  - Audible sighs, can be notably exaggerated
  - Negative facial affect (e.g. eye-rolling, eye-narrowing/glaring)
  - Negativity expressed in body language (such as hand/arm gestures)
  - Any other nonverbal behavior that conveys disgust, sarcasm, mocking, scoffing, scorn/derision, frustration, exasperation, etc

Some mothers naturally assume a more pleasant expression when in their neutral state, or when they are thinking through things or processing information. Smiling, in these instances, does not reflect the type of deliberate display of positive affect being measured by this rating. As such, these types of smiles or pleasant looks should not be weighted very heavily in making this rating.
• Tone of voice and speech content
  o Abrupt, elevated, hostile vocal tone
  o Exasperated or frustrated vocal tone
  o Pessimistic, dismissive
  o Conveying disagreement and disbelief in a way that is argumentative or contentious
  o Antagonistic: initiating conflict or disagreement unprovoked
  o Speech that is harmful, hurtful, or hostile
    • Name-calling, insults, put downs
  o Teasing (that is not wholly good-natured)

Response Scale

1—Low
Mother displays low levels of negative affect in her responses to youth. There are little to no indicators of negative emotionality in how she responds to youth throughout the segment.

2--

3—Moderate
The degree of negative emotionality in mother’s responses to youth throughout the segment is in the mid-range. About half of the time, mother’s responses to youth contain one or more of the indicators of negativity emotionality described above.

4--

5—High
Mother displays high levels of negative affect in her responses to youth. Most to all of her responses can be characterized by at least one of the indicators of negative emotionality described above.

Rating 3: Mother’s Intensity
Description:
This subscale measures the emotional intensity (strength, magnitude, or meaning) of the behavior and expressed emotion that characterize mother’s responses to youth throughout the segment. Emotional intensity encompasses things such as mother’s emotional arousal, the meaning and animation of her speech and movements, and energy level (how “lively” or expressive he/she may appear).

To emphasize, emotional intensity can be expressed in a variety (and combination) of ways—verbally and nonverbally—through affective displays (positive/negative), verbal content, and physicality. Below are descriptions of how intensity can manifest in each of these 3 realms (and in combinations thereof).

Emotional intensity in affective displays (positive and/or negative):
• First identify positive and negative emotional expressions (see descriptions of positive and negative affect in Emotional Valence subscales for reference)
• Then decide how intense or strong those emotional displays are
  o Balance against the degree of neutrality in youth’s behavior
Emotional intensity in **verbal content**:
- In deciding on ratings for this scale, weight must be given to the emotional intensity and meaning of mother’s words.
- High intensity verbal content expresses deep positive or negative feelings about youth and/or experiences or activities mother and youth participated in together.
- Examples of high intensity verbal content (can be positive or negative):
  - **Negative**
    - “You shouldn’t be such a smart-mouth”
    - “I hated that”
  - **Positive**
    - “I love you”
    - “I have a lot of fun doing _____ with you”
    - “I’m just so, so proud of what Jane has accomplished; it warms my heart to see how she’s grown.”

Emotional intensity in **physicality/energy level**:
- Physicality can be a good indicator of emotional intensity, but at the same time high emotional intensity **does not require** high levels of physicality.
- Physicality gets at how animated the aspects of what youth says and does during the segment are. These aspects include:
  - Range of bodily movement (how “fidgety” s/he is)
  - Range of facial expressions
  - Range of vocal expressions
    - Changes in tone
  - Pitch or “loudness” of voice
- The following are different but equally valid expressions of high intensity:
  - Not loud or boisterous, but emotional meaning of speech so heavy
    - High levels of intensity do not necessarily have to appear high energy as described in the section on physicality above.
    - High intensity can look un-lively at times
      - e.g. youth 114-2024, who was very quiet but at the same time simmering with anger and defiance in a way that was so noticeably intense/strong)
  - High physicality: not as much emotionally-charged verbal content; youth’s demeanorbehavior is just more explosive, boisterous
Response Scale

1—Low

Throughout the segment, mothers’ responses to youth show low levels of intensity as described above. Low intensity ratings may manifest in a couple different ways, such that mothers may appear flat affect or very calm. They may mumble, but at least speak in a lower-pitched voice.

Note: Be careful of the distinction between vocal tone and pitch. It is possible to speak in a low pitch, but with a tone that is notably intense (due to the amount of emotional meaning it contains). In a case such as this, mothers should receive higher than a “low” rating.

2—

3—Moderate

The level of intensity which characterizes mother’s responses to youth is either in the mid-range, or mother shows a mixture of low and high levels of intensity in her responses.

4—

5—High

Throughout the segment, mothers’ responses to youth show high levels of intensity as described above. Compared to other mothers, those high on intensity are likely to talk in a louder voice, perhaps at an accelerated cadence. The emotional meaning of what they say is often quite loaded. Mother’s responses are often characterized by comments that are highly emotionally charged, positively or negatively.

In general, behaviors indicative of a high intensity rating may be positive or negative (keep in mind that this rating is separate from emotional valence). Along with loud tone and fast vocal cadence, behaviors consistent with a High intensity rating include shouting; harsh words (said with or without a louder voice); and strong scowls and stares. Alternately, high intensity mothers can also be characterized as very lively, and may show behaviors such as shrieks, loud laughter, effusive praise; exaggerated speech; general excitement, etc.

Rating 4: Referent Appropriateness

Description:

This subscale captures the degree to which a mother’s response maintains or shifts the referent of the youth statement that preceded her response, OR the referent of the discussion-prompt card that she is given. By “referent,” we mean the focus of mother’s speech: self or youth. As such, this rating will be largely determined by the speech content of mothers’ responses to their youth.

In order to receive a high rating on this scale (4 or 5), the referent of mother’s responses must consistently match the referent of the youth speeches or behaviors that immediately preceded it (or the referent of the card that she just read).

If the youth was focusing on him- or herself, then mother’s response should also be youth-focused. In other words, when the teen expresses a self-focused idea, does mother respond with a focus on the youth or on herself? If mother consistently switches the focus (or referent) of the conversation to herself, then she should receive a lower rating on this subscale (1-2).

For example, youth says: “I want to go to the library this weekend.” This is a statement in which the referent (or focus) is the youth. If mother were to respond by saying “Well, I want to go to the
baseball game,” she will have switched the referent to herself. She should therefore be given a lower rating.

An example of a mother response which would maintain the referent is: “Oh, you want to go to the library? I’d actually like to go to the baseball game.” This mother would receive a much higher rating. The youth remains the referent of the first part of her response. Even though the second part of her statement is self-focused (mother expresses her own want), this is okay. It is consistent with a high rating because mother has given both perspectives—her child’s and her self’s—equal weight. She has not over-ridden the interest or need of her teen with her own. This equal weighting, and acknowledgement of child perspective, is what is crucial for referent appropriateness.

Likewise, the referent of youth’s behavior or speech could have been the mother; if this were so, then the referent of mother’s response should be herself. For example, youth says: “my mother sometimes forgets to pay me for mowing the lawn when she says she will.” A mother response which maintains the referent would be, “well, you’re right—I’m not always very good at remembering…or I might not have the money.”

A more nuanced example of high referent appropriateness is as follows. In response to youth saying, “I think you over-react when we forget to clean up our rooms,” mom says “Well, I get irritated when I see that you’ve left your towels on the ground.” Even though mother mentions something that youth does that irritates her, she still maintains the referent because she also first expresses how she feels “I get irritated…” Thus she has kept the focus of the conversation on herself. An example of low referent appropriateness in this instance would be if mom replied, “Well, you always leave your towels on the floor…who wouldn’t be annoyed by that?”

As stated above, we will also be rating referent appropriateness in light of how mother responds to the discussion-prompt cards that she is asked to read. Importantly, we will NOT be considering her responses to the prompt cards that youth reads. We will only be thinking of referent appropriateness in light of prompt cards for the “mother”/”parent.” The rating process for mother’s response to her question cards is similar to that described above for her response to youth statements or behaviors:

- Mother maintains the referent—thus contributing to a higher overall score on this subscale—if her initial response to a card matches the referent the card is pulling for. In other words, if the question card pulls for a focus on the youth, mother’s first answer—or the first thing she says after reading the question—should be youth-focused; conversely, if the question card pulls for a focus on the mother, then her initial response should be self-focused.
- Mother switches the referent if her initial response does not reflect the referent the card is pulling for.

Referent Appropriateness will be rated on a 5-point scale. To make this rating, think of the degree to which mother maintained or switched the referent in her responses to youth and her prompt cards (not youth’s) throughout the entire segment. Also important to consider is that there will be instances in which mother speech seems “referent-less.” Don’t try too hard to infer a referent in cases like these where it is not clear—focus just on those instances when you can confidently determine the referent (or focus) of mother’s speech and the youth’s preceding it.

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11 Please see the “Description of Interaction Task and Task Cards” section in this manual for a list of which prompt-cards are assigned to the mother, and which are assigned to the youth.
Response Scale

1—Low
The referent of mother’s speech is almost always the opposite of the youth’s which preceded it. For example, youth says “I am a ‘geek-magnet,’” and mother responds, “Good, I can’t even think about you dating yet!” In this case, the mother switched the focus of the conversation from her youth to herself.

2—
3—Moderate
Mother should receive this rating if there are a couple of pronounced instances in which she clearly shifts the referent of the conversation. Often, as a result of mother’s shifting the focus in this way, youth expressions of ideas and/or affect are impeded or cut off.

4--
5—High
Throughout the segment, all of mother’s responses to youth maintain the proper referent of conversation.

6. Contempt:
Description:
In short, contemptuous behaviors convey a disregard for the other person and a view of the other as inferior to the self. As such, contemptuous behavior often belittles, hurts, or humiliates. Contempt can be overt, often taking the form of pointed statements or nonverbal expressions. Likewise, contempt can take a more covert form as in instances in which mother totally disregards or seems indifferent to what the youth is saying. In all cases, contemptuous behavior communicates a lack of respect, and often hurtfulness or even cruelty.

Contempt shown from mothers to teens often manifests in hostile statements that “get at” youth on a more personal level. Both frequency and intensity of contemptuous displays matter for making ratings on this scale.

Indicators of contempt include the following:

- Sarcasm
  - Saying something that has another intended meaning
  - Can be preceded by laughter at the receiver’s expense
  - Can also entail ridiculing something youth has just said
    - Examples: ironic use of such statements as “sure!” or “I’ll bet you did”

- Mockery
  - Repeating something the youth has said in a way that is notably exaggerated
    - May function to make the youth feel silly, stupid, or look ridiculous

- **Insults**
  - Shows of disrespect for the youth through mean, hurtful, or cruel statements

- **Hostile Humor**
  - Unshared humor that, though an apparent joke, utilizes sarcasm, mocking, or insults to achieve the aim of contempt (to belittle, hurt, or humiliate)
  - By delivering such messages as a “joke,” the speaker may be attempting to leave him- or herself an “out (as in, “hey, I was only joking”).
  - The contemptuous speaker may laugh heartily, and sometimes the receiver will briefly and reflexively laugh along

- **Eye rolls**

- **Smirking**
  - a smile in which just one corner of the mouth is upturned (“unilateral lip raise”)

**Counter-indicators (“false indicators”) of contempt**
- **Good-natured teasing**
  - Good natured “jabs” at the receiver’s foibles
  - Context of the conversation appears to contradict contemptuous intentions or that the speaker and receiver appear to both experience laughter and joy as a result of the teasing

**Rating Tips:**
- Contemptuous behavior does not always occur within a hostile affective context
  - This said, contempt without hostility is relatively rare
- When deciding whether or not a given behavior is contemptuous (or when deciding the strength of a contemptuous behavior), do not try to infer the motivation or intention underlying the behavior
  - It is hard to do this reliably—oftentimes trying too hard to infer mother’s intent (e.g. whether her behavior is deliberately contemptuous) will detract from the accuracy and ease of the rating decision

**Response Scale:**
1—None
  - There are no indices of contempt as described above throughout the entire segment.
2—
3—Moderate
  - As a general rule, there are 2-3 separate instances in which mother shows contempt towards youth during the segment. However, there are still notable instances in which she behaves in a way that is non-contemptuous.
There is balance to keep in mind, however. Intensity of contemptuous behavior can compensate for what is lacking in frequency. If mother displays a particularly strong indicator of contempt—even in the absence of any other contemptuous behavior—she could still receive a moderate rating.

In either case, mother’s behavior on the whole is not consistent enough with contempt (or the instances of contempt not strong enough) to earn her a “4” or “5” rating. In other words, behavior meant to belittle, hurt, or humiliate does not characterize the majority of her stance towards the youth. It may seem more isolated.

4—
5—High

Mother is frequently contemptuous of youth throughout the interaction. As a general rule, there are at least 4-5 instances in which mother shows contempt towards youth.

Alternately, there may be fewer than 4-5 instances of contempt, but in these instances the behavior is so strong and meaning to belittle, hurt, or humiliate so clear that it deserves this highest rating. Examples include blatant and loud insults; very strong mockery; etc.

In any case, it is safe to say that an attitude of contempt characterizes mother’s stance towards the youth.

7. Defensiveness

Description:

Defensiveness functions to deflect responsibility, judgment, or blame from oneself. In its strongest form, defensiveness communicates a kind of innocent victimhood or righteous indignation (e.g., as a counterattack) on the part of the speaker, implying that whatever is being discussed is not the speaker’s fault.

Coming to a correct rating decision for defensiveness involves balancing both frequency and intensity of mother’s defensive response. Even if mothers react in a defensive way one or two times, they may still receive a high rating for this scale if their responses are strong enough. Conversely, mothers may receive moderate ratings if there are multiple episodes of mild defensiveness.

Indicators of Defensiveness include the following:

- “Yes-but” statements
  - Statements that start off as momentary agreements but very quickly end in disagreements

- Cross-complaining
  - Meeting one complaint with an immediate counter-complaint
  - Complaints are simply not responded to—cross-complaints deflect them by leading the conversation into a suddenly new direction

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• Minimization
  o Attempting to minimize a complaint by asserting that the problem they are potentially responsible for was scarcely a problem in the first place
  o Example: “You’re right, I did forget to put the garbage out, but there was hardly any garbage anyway, so it isn’t really a problem. It can wait until next week.”

• Strong Excuses
  o Attempts to locate responsibility or blame in something other than the speaker
  o Example: “Well, traffic was all backed up, there was nothing I could do”

• Aggressive Defenses / Counter-attack
  o Vehement denials of responsibility that come across as childish, as in “did not/did too” interactions
  o Aggressively asserting things, e.g. “I did not!”

• Mother’s responds in a way that is “ego protective”
  o Her behavior reflects high levels of ego-involvement
    • To mom, what youth says or does is a threat to her ego
      • i.e. it implies that she isn’t all that she thinks she is
      • it may cause her to feel unappreciated or unfairly judged, held responsible, or blamed
    • So her defensive response is a way to “protect” against the perceived threat to her ego

• Arms folded across chest, voice increase in pitch and amplitude, eyes widen, eye-brows raised

Counter-indicators (“false indicators”) of Defensiveness:
• Invalidations
  o Statements designed to directly contradict the receiver (e.g. “you are wrong” or “that’s simply untrue”), spoken in a lower pitched voice tone. This is more indicative of the construct of Domineering

Rating Tips
• A helpful way to think about defensiveness is in terms of whether or not mother is the topic of discussion when the behavior occurs.
  o Oftentimes, youth will have put mother “on the spot”
  o Defensiveness needs to be a direct attempt to deflect blame or responsibility from the self
    • If you have to infer more than just a bit to get to this place, then the behavior probably shouldn’t be rated as defensive
• Defensiveness often involves an attempt to **escape responsibility**

• Acting in a way consistent with defensiveness is like putting up a “defensive shield” against what someone is saying about oneself

• There is an important distinction between explaining/justifying and defensiveness: Explaining and justifying a behavior is **often not** the same as being defensive
  o In order for justification to count as defensiveness, the justification that mother is doing must be much stronger than the normal amount of justification that would be necessary, acceptable or reasonable in the situation
  - By “much stronger,” we mean the justification must come with a higher level of affect and strength of expression than what the situation calls for

Response Scale:
1—**None**
   There are no indices of defensiveness as described above throughout the entire segment.

2—
3—**Moderate**
   As a general rule, there are 2-3 separate instances in which mother shows defensiveness through her verbal and/or nonverbal behavior during the segment. However, there are still notable instances in which she behaves in a way that is non-defensive.

   There is balance to keep in mind, however. Intensity of defensive behavior can compensate for what is lacking in frequency. If mother displays a particularly strong indicator of defensiveness—even in the absence of any other defensive behavior—she could still receive a moderate rating.

   In either case, mother’s behavior on the whole is not consistent enough with defensiveness (or the instances of defensiveness not strong enough) to earn her a “4” or “5” rating. In other words, behavior meant to deflect blame, judgment, or responsibility does not characterize the majority of her stance towards the youth. It may seem more isolated.

4—

5—**High**
   Mother is frequently defensive throughout the interaction. As a general rule, there are at least 4-5 instances in which mother’s behavior serves the purpose of deflecting blame, judgment, or responsibility from herself. Nearly every time youth says or does something that could elicit defensive behavior, she responds with verbalizations and/or nonverbal behaviors indicative of defensiveness. She frequently makes excuses, explains away, minimizes, cross-complains and/or finds other ways to deflect responsibility or blame from herself.

   Alternately, there may be fewer than 4-5 instances of defensiveness, but in these instances her defensive reaction is so strong that it deserves this highest rating. Examples include vehement denials of responsibility; cross-complaining in a way that is angry or hurtful and attacks youth on a personal level; etc.

   In any case, it is safe to say that an attitude of defensiveness characterizes mother’s stance towards the youth.
8. Affection

Description:

Affection expresses genuine caring, love and concern, and it functions to facilitate closeness and bonding. It may also offer comfort, and affectionate behaviors can convey a sense of liking, appreciation, support and/or praise. Importantly, affection is more than just positive affect or emotion.

In rating this scale, we are looking for clear, intentional displays of caring, concern, comfort and love, expressed either verbally or physically/nonverbally. Additionally, raters must take into account the duration, intensity (strength), and frequency of such behaviors.

Indicators of Affection

- Reminiscing
  - Mother shares warm memories of something she and the youth enjoyed or participated in together.

- Caring statements
  - Direct statements of affection or concern, such as “I love you,” “I care about you,” “I worry about you,” and so forth.

- Using an affectionate nickname for youth
  - E.g. “sweetie,” or “tootse”

- Compliments
  - Statements that communicate pride in or admiration of one’s youth (e.g. “you are so smart!” or “you did such a great job with the…”).
  - Must be genuine, strong, and pronounced in order to count as a strong indicator

- Empathy
  - Empathizing mothers mirror the affect of their youth. Such mirroring need not be verbal, but however it is expressed, it should be obvious that the intent of the mirroring is to express an understanding of the youth’s feelings.
  - Importantly, empathy does more than simply validate the youth’s thoughts and feelings—by mirroring the affect of the youth at the same time, it conveys a level of care that surpasses validation per se.

- Gentle touch
  - Patting youth’s arm, gently squeezing hand or arm, taking hand gently, touching shoulder to youth’s shoulder in a warm way
  - Example: Mother puts hand gently on daughter’s arm while explaining something in a calm, warm, or concerned manner

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14 This scale was added because it may provide useful in tapping into emotional awareness and emotional validation
• **Hugs**
  o Must be gentle and non-forced to count as affectionate, not awkward

• **Movement towards child**
  o Deliberate sitting or leaning in to emphasize mother’s care, concern, or love
  o Example: mother leans in toward youth in a way that is friendly and/or loving, and reflects a closeness between the two; and youth does not seem uncomfortable because of this display by mom.

**Counter-Indicators of Affection:**

• **Defensive affection**
  o Mother insists that she loves the youth as a defensive maneuver.
  o The indicators of defensiveness will usually give this away. Watch for defensive voice tone, a defensive context, and a lack of warm, positive feeling underlying the affectionate message.

**Rating Note:**

• Reciprocated positive emotionality and a warm, calm, or loving vocal tone are the foundation for affection. These qualities create the affective context within which affectionate behaviors occur. In other words, the indicators of affection described above almost always occur within mother-youth interactions that are characterized by at least a low level of warmth and nurturance to begin with.
  o Because of this, shared positive affect and a warm/calm tone will not influence ratings (above a “2”) for this scale. When deciding on ratings, focus on the duration, frequency, and intensity of explicit, clear indicators of affection that fall within the behaviors described above in the “Indicators of Affection” section.

**Response Scale:**

1—None

There are no detectable indicators of affection described above in mother’s behavior throughout the segment. Furthermore, there are little to none of those positive affective behaviors—such as reciprocated positive emotion or warm, calm, or loving tone of voice—that often create the context within which affectionate behaviors occur.

Mothers who receive “1”s don’t necessarily have to be harsh towards their youth—they simply lack any of the positive indicators of affection described herein.

2—
3—Moderate
Typically, a mother at this level will display 2-3 indicators of affection towards her youth throughout the segment, and her affectionate behaviors occur within a warm and nurturing affective context. IMPORTANTLY, however, a mother may still receive this rating if she shows just 1 indicator of affection that is instead characterized by a higher than usual strength and/or duration.

4—

5—High
Typically, a mother at this level will display 4-5 indicators of affection towards her youth throughout the segment, and her affectionate behaviors occur within a warm and nurturing affective context. It is clear that mother has an attitude of liking, appreciation, support and/or praise towards the youth, and there is a sense that her behavior facilitates closeness and bonding with him/her.

IMPORTANTLY, however, a mother may still receive this rating if she shows fewer than 4-5 indicators of affection that are instead characterized by a higher than usual strength and/or duration.

A mother can even receive this rating if she just shows 1 indicator of affection that is particularly poignant, powerful, or extensive. Take, for example, a mother who holds the hand of a weeping daughter throughout a segment to offer comfort. Or, a parent who just holds/hugs a distressed youth for a period of time. Each of these behaviors could earn the mother a “5.”

9. Emotion Speech, General
Description:
This codes for the general use of emotion words by the parent (i.e. speech featuring emotion words) in reference to herself or her youth. Rating on this scale involves counting how many times mother uses an emotion word to describe her own or her youth’s emotional experience (mothers can also use emotion words in an eliciting or inquiring way). It is intended to get at mother’s general affective awareness and her comfort with emotion and also her skill at using emotion words in the course of speech. Since parents can use emotion speech to describe themselves and/or their youth, raters will make two separate codes: one for the parent’s use of emotion words in reference to herself, and one for her use of emotion speech in reference to her youth.

Importantly, use of general emotion speech reflects an understanding of emotional experiences THAT ARE NOT HAPPENING IN THE PRESENT ENCOUNTER. That is, parents are describing feelings experienced in the past (e.g. “that is when we had to move and I felt very sad”) and/or future.

This rating and the rating below for “Articulation of Present Emotion” are mutually exclusive. A parent’s articulation of the emotion that self or youth are feeling in present moment does not fall under the purview of the present rating (use of emotional speech). In other words, a single statement by a parent cannot “count” for both of these ratings. Thus, parents who receive a “1” for Articulation of Present Emotion will not necessarily receive a “1” for Emotional Speech. Receiving “1’s” for both of these codes requires the display of two distinct types of behavior.
Common emotion words parents often use that count for this rating:16

Happy, excited, frustrated, disappointed, angry, sad, mad, proud, enjoy, confused, jealous, surprised, like, and love.17

Some examples:

- Praise or positive acknowledgment of child activities that reflect a general, global sense of approval for child actions or accomplishments
  - “I’m glad you’re involved in sports”
  - “Your biggest accomplishment is passing 7th grade, and I’m very proud of that”

- Articulation of how child or self felt during or about events outside of the present moment
  - “You used to get really frustrated by your math homework earlier this year, but I’ve noticed that recently you’ve been a lot calmer when doing homework.”
  - “It makes me sad when you don’t want to tell me about your day at school.”

**Rating 1: Emotion words in reference to self**

Response Scale:

1—

No indices of emotional speech as described above in reference to self during entire segment.

2—

Throughout the segment, mother uses an emotion word in reference to herself only once. Put another way, she uses an emotion word to describe herself during the segment only once.

3—

Throughout the segment, mother uses an emotion word in reference to self two times. Put another way, there are two instances in which mother uses an emotion word to describe herself.

4—

Throughout the segment, mother uses an emotion word in reference to self three times. Put another way, there are three instances in which she uses an emotion word to describe herself.

5—

Throughout the segment, mother uses an emotion word in reference to herself four or more times. Put another way, there are four instances in which she uses an emotion word to describe herself.

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16 See “Emotion Words Tip Sheet” in Appendix section for further reference.
17 The words “like” and “love” count as emotion speech because their use expresses positive emotion and a deeper feeling about something, even when used more casually.
Rating 2: Emotion words in reference to youth

Response Scale

1—

No indices of emotional speech as described above in reference to youth during entire segment.

2—

Throughout the segment, mother uses an emotion word in reference to youth only once. Put another way, she uses an emotion word to describe her youth during the segment only once.

3—

Throughout the segment, mother uses an emotion word in reference to youth two times. Put another way, there are two instances in which mother uses an emotion word to describe her youth.

4—

Throughout the segment, mother uses an emotion word in reference to youth three times. Put another way, there are three instances in which she uses an emotion word to describe her youth.

5—

Throughout the segment, mother uses an emotion word in reference to youth four or more times. Put another way, there are four instances in which she uses an emotion word to describe her youth.

10. Articulation of present emotion

Description:

Mother verbalization of how they are feeling in the present interaction AND/OR how they perceive youth to be feeling presently. This is about parent’s awareness of the emotional climate of the interaction, manifest in their own self-disclosure or statement of how their youth is feeling “in the moment.” Coders will make two separate ratings, one for parent articulation of their own present emotional experience, and one for what they perceive their youth’s to be.

Prototypical examples are “You seem angry as we’re talking about this;” “The idea of us having a ‘girls’ weekend’ makes me really excited;” and “I was concerned when you said just now.” Note the subtle difference between the first two sentences and the last: in the first two, mother is describing an emotion felt by her youth or herself in that exact moment. In the third example, she is describing an emotional experience that happened in the very recent past—within the 15 minute interaction that we are rating, to be exact. We still “count” instances like this as articulation of present emotion because mom is describing an emotional experience that is proximal to her current state.

Specifically, if mother uses an emotion word to describe how herself or her youth were feeling at any point during the 15 minute interaction task, then it will count as an instance of articulation of present emotion.
Rating Notes

- This rating is NOT getting at parent’s ability to identify emotions felt by self or youth in past situations outside of the 15 minute interaction task that they are presently participating in. So, the statement “You’re not getting as frustrated when showing other people’s dogs as you used to” is NOT consistent with what we’re looking at for this rating.

- This rating and the above rating for “Emotion Speech” are mutually exclusive. A parent’s articulation of the emotion that self or youth are feeling in present moment does not fall under the purview of the present rating (use of emotional speech). In other words, a single statement by a parent cannot “count” for both of these ratings. Thus, parents who receive a “1” for Articulation of Present Emotion will not necessarily receive a “1” for Emotional Speech. Receiving “1’s” for both of these codes requires the display of two distinct types of behavior.

Rating 1: Discuss Own Feelings (Parent Acknowledges or Describes how she is feeling in the present moment)

Response Scale:

1 – Mother does NOT articulate her present emotion during the entire segment.

2 – There is one instance during the segment in which mother articulates her present emotion.

3 – There are two instances during the segment in which mother articulates her present emotion.

4 – There are three instances during the segment in which mother articulates her present emotion.

5 – There are four instances during the segment in which mother articulates her present emotion.

Rating 2: Discuss YOUTH Feelings (Parent Acknowledges or Describes how youth is feeling in the present moment)

1 – Mother does NOT articulate youth’s present emotion during the entire segment.

2 – There is one instance during the segment in which mother articulates youth’s present emotion.

3 – There are two instances during the segment in which mother articulates youth’s present emotion.
There are three instances during the segment in which mother articulates youth’s present emotion.

There are four instances during the segment in which mother articulates youth’s present emotion.

11. Compassion

Description:

The Compassion rating focuses on mother’s approach towards youth in instances of potential or actual youth experience of negative emotion reflective of distress. It examines her expressions of caring and concern, as well as her attempts to understand youth experience and to subsequently relieve youth suffering in a way that corresponds with youth experience and meets his/her needs in that instance. Similar to the O/A scale, Compassion examines the degree to which parents make a real effort to connect with and understand their youth. An important distinction, however, is that O/A scale focuses broadly on youth thoughts, behaviors, and emotions. Compassion, however, is concerned principally with the realm of emotion, namely negative emotion.

Important Rating Note:

There are two main circumstances or scenarios in which mothers have the opportunity to show compassion to their youth that we will be able to observe (and therefore rate):

1) Moments of youth emotional distress. This can be distress being felt by youth in the present moment, OR distress felt in the past that he/she is referencing or recounting in the course of conversation (either as the main topic or focus of dialogue, or as something more tangential). Youth emotional distress may range from being very minimal and low-level to quite high and pronounced.

   - Sometimes, youth distress may be quite evident in his or her body language, tone of voice, and/or facial expressions.
   - At other times, youth will tell “stories” about events or past experiences that express an affect or some level of suffering
   - Youth distress or suffering will often be observable in affective expressions of sadness, anger, uncertainty or confusion, frustration, and disappointment, among others.

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It is conceivable that a mother could be highly open and accepting of youth thoughts or behavior, but not compassionate due to a lack of understanding or connection with her youth’s negative emotional experience. For example, a mother could be relatively laissez-faire in her approach towards her youth’s thoughts and behavior, for the most part letting him do or say what he pleases. She would be low in compassion, however, if she was equally unconcerned with her child’s emotional well-being.
2) Moments of conflict, or when mother approaches youth about a difficulty or issue she perceives in him/her or in their relationship. In particular,
   - The way in which mother expresses disagreement, disapproval, or displeasure with youth or something youth says, thinks, or does
   - Her manner of talking about moments of conflict between herself and youth
   - The way in which mother connects (or doesn’t connect) with youth around a difficulty

In segments in which neither of the above scenarios occurs—the interaction is largely neutral, benign, unthreatening, and/or amiable—it will not be possible to rate compassion. In these instances, select the “not rateable” response option.¹⁹

Rating the level of compassion reflected in mother’s behavior:
There are 3 key components of compassion as rated by this scale:

A) Recognition
   - Mother’s behavior towards youth indicates that she has some degree of awareness of youth emotional state. This “state” can be past or present emotional distress. It can also be how youth is likely to feel when she talks with him about a problematic or difficult issue or topic.
   
   In short, mother is aware of when her youth is under (or could become under) emotional distress or could be experiencing negative emotion of some kind

B) Empathic Responsiveness and Perspective-Taking
   - Mother responds to youth past or present emotional distress in a way that reflects a sense of care and concern towards the youth and a desire to relieve his/her distress.
   - Mother’s behaviors towards youth appear to be informed by her understanding of his/her emotional state.
   - Mother tries to understand the issue or difficulty from the perspective of the youth; she tries to “get into the shoes” of the youth to understand why something would be challenging or hard for him/her

C) Youth-centered
   - Showing compassion means that a parent attempts to understand what it is her child needs (the reason underlying his or her difficulty which leads to conflict or emotional distress) and how she as a parent can help the child fulfill those needs, without imposing her own idea of what it means to be helpful or of what the child needs.
     - One thing this requires is for mothers to allow their youth to express distress (negative affect or verbal content) without immediately trying to change, re-

¹⁹ See 123-2034 segment 1 for a helpful example of a segment that is Not Rateable: in this segment, youth expresses mild dissatisfaction about certain things in her family, but in a way that is not indicative of underlying emotional distress (it is more playful or purposefully meant to get a “rise” out of mom).
direct or fix it. Mothers must be able to tolerate youth displays of negative emotion.

- Yet compassionate parents do attempt to shift youth out of that distressed emotional state, and they do so in a calm and gentle way.
- Compassion can be thought of as a willingness to hear or “sit with the pain.” A compassionate mother does not avoid or ignore her youth’s expressions of negative emotion; instead, she is open to it out of a concern and care for her youth and a desire to understand and relieve youth difficulty or emotional distress.
- In order to receive high ratings on compassion, mother must make an active effort to connect with youth experience—the emotional experience itself, and the youth-centered explanation for that experience.

In addition to what has been described above, compassion can be expressed through:

- Asking questions about how youth is feeling (i.e. eliciting information about youth experience)
- Gentleness
- Empathizing for the situation
- Paraphrasing
- Reflecting emotion
- Tolerating and accepting child negative emotional displays
- A sense of calm
- Use of humor

Examples of compassionate behavior:
- Mother is listing things that she and youth do together. Each time she brings something up (such as “we went to the movies”), youth replies simply by stating “once” in a flat tone.
  - A highly compassionate response would be: “It sounds like you’re disappointed we were only able to go once.”

- A youth expresses mild discouragement because her older sister doesn’t want to hang out with her.
  - Example of a “5” response: Mother listens intently and somehow communicates to youth that she understands how it would be hard to be treated this way. Mom is able to be with the negative emotion expressed by her youth, and doesn’t immediately try to change it
    - Mom does not try to justify or “explain away” the older sister’s behavior in order to smooth over the negative emotion expressed by target youth.
  - Counter-example (something that would earn lower than a “5” response): Mom jumps in to an explanation of why the older sister is acting in the way she is.
This would be an instance in which mother tries to smooth over or “fix” things when her daughter expresses negative-valenced emotion, even if that emotion is at a relatively low level. If a mother behaves in this way, ratings should be adjusted downwards accordingly.

- In the context of talking about how youth struggled more than usual in school over the past year, youth says “but I’m not dumb like my sister.”
- A mother response that is not particularly compassionate would be saying “that’s not nice,” and then changing the subject.
- An example of a more compassionate mother response is: “No, you’re not dumb, you’re smart. Your sister struggles with this, it’s true. But it’s not nice to say that about her.
  - Here, mother has acknowledged and connected with her daughter over her daughter’s emotion of being relatively good at school, while still driving home the point that she shouldn’t speak unkindly about her sister.

- **It is important to understand that a compassionate response can also be firm and limit-setting,** if what the youth truly needs in that instance is a firm limit or expectation to be set, or consequence to be enforced
  - In these instances, compassion can even look “strict” or “negative” in a sense
  - Example:
    - Youth is upset about something, and in the course of expressing that uses swear words
      - A highly compassionate response would be
        - Mom: “I hear you’re really upset, and I know it’s hard. But to me, I’m upset by your language. And I would ask that you not speak that way anymore.”

### Response Scale

**1—Low**

In instances rateable for compassion (as described in the “Rating Note” above), mother rarely or never responds with compassion. Her stance towards youth in these instances is deficient in each of the 3 components of compassion described above (recognition, empathic responsiveness and perspective-taking, and youth-centered). Mother does not seem to be aware that youth is experiencing—or could experience as a result of what she says or does—some degree of negative emotion (whether it be sadness, anger, uncertainty/confusion, frustration, disappointment, etc). Because of her lack of awareness, she is unable to address youth emotional distress in a way that is empathic and child-centered.

**2--**

**3—Moderate**

In instances rateable for compassion, mother appears to recognize that her youth is experiencing—or could experience as a result of what she says or does—some degree of emotional
distress. She attempts to respond to and address this negative emotional experience, but she does so in a way that is not fully empathic and perspective-taking (as described above) and/or youth-centered.

4--5—High

In instances rateable for compassion (as described in the “Rating Note” above), mothers always or almost always respond in a highly compassionate way: all 3 of components of compassion described above (recognition, empathic responsiveness and perspective-taking, and youth-centered) are present. Ultimately, mothers high in compassion are able to accurately discern the thoughts and needs that underly youth emotion. And based on this understanding, they address and deal with those thoughts and needs.

Not Rateable (NR)

12. Youth Intensity

Description:

The purpose of this subscale is to measure the emotional intensity (strength, magnitude, or meaning) of youth’s behavior and expressed emotion during the segment. Emotional intensity encompasses things such as youth’s emotional arousal, the meaning and animation of his/her speech and movements, and energy level (how “lively” or expressive he/she may appear).

To emphasize, emotional intensity can be expressed in a variety (and combination) of ways—verbally and nonverbally—through affective displays (positive/negative), verbal content, and physicality. Below are descriptions of how intensity can manifest in each of these 3 realms (and in combinations thereof).

Emotional intensity in affective displays (positive and/or negative):

- First identify positive and negative emotional expressions (see descriptions of positive and negative affect in Emotional Valence subscales for reference)
- Then decide how intense or strong those emotional displays are
  - Balance against the degree of neutrality in youth’s behavior

Emotional intensity in verbal content:

- In deciding on ratings for this scale, weight must be given to the emotional intensity and meaning of youth’s words
- High intensity verbal content expresses deep positive or negative feelings about mother and/or experiences or activities mother and youth participated in together
- Examples of high intensity verbal content (can be positive or negative)
  - Negative
    - “You’re a jerk”
    - (calling parent a name)
    - “That trip was so boring”

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20 Including a rating of youth behavior in this way is crucial for accurate interpretation of maternal reactivity, as well as for comparing different levels and indices of reactivity across mothers.
Positive
- “I love you”
- “I really like it when we ____”

Emotional intensity in physicality/energy level:
- Physicality can be a good indicator of emotional intensity, but at the same time high emotional intensity does not require high levels of physicality.
- Physicality gets at how animated the aspects of what youth says and does during the segment are. These aspects include:
  - Range of bodily movement (how “fidgety” s/he is)
  - Range of facial expressions
  - Range of vocal expressions
    - Changes in tone
  - Pitch or “loudness” of voice

The following are different but equally valid expressions of high intensity:
- Not loud or boisterous, but emotional meaning of speech so heavy
  - High levels of intensity do not necessarily have to appear high energy as described in the section on physicality above.
  - High intensity can look un-lively at times
    - e.g. youth 114-2024, who was very quiet but at the same time simmering with anger and defiance in a way that was so noticeably intense/strong)
- High physicality: not as much emotionally-charged verbal content; youth’s demeanor/behavior is just more explosive, boisterous

Response Scale
1—Low
Youth behavior shows low levels of intensity. Youth who receive low intensity ratings may be described as flat affect or very calm. They may mumble, but at the very least speak in a low tone of voice.

*Note:* Be careful of the distinction between vocal tone and pitch. It is possible to speak in a low pitch, but with a tone that is notably intense (due to the amount of emotional meaning it contains). In a case such as this, youth should receive higher than a “low” rating.21

2—
3—Moderate
The intensity of youth behavior is in the mid-range. Alternately, the youth may show a mixture of low and high levels of intensity in his/her behavior, or a couple isolated instances of elevated intensity which nonetheless preclude receiving a “1” or “2.”

---
21 See youth in 114-2024 (segment 4) for reference: This youth should receive a “High” intensity rating, although he speaks in a quiet voice and is quite disengaged at times during the interaction.
Throughout the segment, youth show high levels of intensity as described above. Compared to other youth, those high on intensity are likely to talk in a louder voice, perhaps at an accelerated cadence. The emotional meaning of what they say is often quite loaded. There are frequent comments throughout the segment that are highly emotionally charged, positively or negatively. In general, behaviors indicative of a high intensity rating may be positive or negative (keep in mind that this rating is separate from emotional valence). Along with loud tone and fast vocal cadence, behaviors consistent with a High intensity rating include shouting; harsh words (said with or without a louder voice); strong scowls and stares; excitement; shrieks, loud laughter, effusive praise; exaggerated speech; etc.
II. Whole Interaction

Mindfulness in Parenting Criterion Ratings

THESE RATINGS WILL SERVE AS GLOBAL RATINGS OF MINDFULNESS IN PARENTING FOR THE ENTIRE INTERACTION AND WILL BE CONDUCTED TO SERVE AS CRITERION OUTCOMES ALONG WITH THE SELF-REPORTED RATINGS OF MINDFULNESS.

DIRECTIONS:

Mothers degree of mindfulness in parenting will be rated on two global scales, one based on observed behaviors, and the other on speech content (see below for further instructions). Watch the ENTIRE mother-youth interaction one or more times before making these two ratings. Evaluate the extent to which mother’s observed interactions with her child and the content of her speech reflect the characteristics described below and make a final rating on the rating scales below.

Definition of Mindful Parenting:
Mindful parenting is the ongoing process of intentionally bringing moment-to-moment, non-judgmental awareness to the interactions one has with his/her children. Mindfulness in parenting starts with a strong sense of self-awareness. It grows to include:

(1) recognizing and keeping in mind each child’s unique nature, temperament, and needs;

(2) listening deeply and creatively engaging with full attention when interacting with one’s children;

(3) holding in awareness with kindness and sensitivity, both one’s child’s and one’s own physical, emotional and mental states and motivations - including inner feelings, thoughts, body sensations, intentions, expectations, and desires;

(4) developing the reflective capacity to make links between physical/emotional/mental states and behavior in self and others;

(5) regulating one’s emotional reactions and behavior in a way that contributes to more positive parent-child interactions;

(6) recognizing and protecting against one’s own reactive impulses in relationship to one’s children and their behavior, and responding in ways that are decisive and developmentally appropriate to a child’s needs.

(7) expressing compassion and non-judgmental acceptance to oneself and one’s children;
Response Scale:

1—Low:
Mother’s interaction with her youth shows generally low levels of the characteristics of Mindful Parenting described above. The duration of any instances of quality mindful parenting is brief.

2—

3—Moderate:
Mother’s interactions with their youth reflect some of the qualities described above, but either these qualities are not displayed consistently or strongly (e.g., attention is given, but mom is “partially attending” rather than “fully attending”), or the duration is sporadic (e.g. in some instances mom reacts strongly to her youth’s statements and other times is less reactive to similarly valenced statements from the youth).

4—

5—High:
Mother’s interactions with her child consistently reflect many of the qualities of mindfulness in parenting. During the majority of the interaction the parent is emotionally and cognitively present with her child and is responsive to the child’s emotional and cognitive experiences.
Interpersonal Mindfulness in Parenting Rating/Coding Sheet

<table>
<thead>
<tr>
<th>Scale/Code</th>
<th>Segment</th>
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<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Task Card(s)</strong></td>
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</tr>
<tr>
<td>1. Attentive Listening</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. Verbal Reciprocity</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. Validation</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4. Openness/Acceptance</td>
<td>1 2 3 4 5</td>
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<tr>
<td>5. Reactivity</td>
<td></td>
</tr>
<tr>
<td><strong>Wait Time</strong></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td><strong>Mother Intensity</strong></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td><strong>Emo. Valence</strong></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td><strong>Pos</strong>: 1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td><strong>Neg</strong>: 1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td><strong>Referent App.</strong></td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6. Contempt</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7. Defensiveness</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8. Affection</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9. Emotion Speech, General</td>
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<tr>
<td><strong>Self</strong>: 1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td><strong>Youth</strong>: 1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>10. Articulation of Present Emotion</td>
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<tr>
<td><strong>Self</strong>: 1 2 3 4 5</td>
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<tr>
<td><strong>Youth</strong>: 1 2 3 4 5</td>
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<tr>
<td>11. Compassity</td>
<td>1 2 3 4 5</td>
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<tr>
<td><strong>NR</strong></td>
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<tr>
<td>12. Youth Intensity</td>
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<tr>
<td>Overall Mindful Parenting (Global Score)</td>
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Whole Interaction: Interpersonal Mindfulness in Parenting Criterion Ratings
Appendix B


<table>
<thead>
<tr>
<th>Scale Abbreviation</th>
<th>Scale Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ND</td>
<td>Neglecting/Distancing</td>
</tr>
<tr>
<td>IP</td>
<td>Indulgent/Permissive</td>
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<tr>
<td>QT</td>
<td>Quality Time</td>
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<tr>
<td>PI</td>
<td>Parental Influence</td>
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<tr>
<td>CM</td>
<td>Child Monitoring</td>
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<td>CD</td>
<td>Consistent Discipline</td>
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<td>ID</td>
<td>Inconsistent Disciplines</td>
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<td>HD</td>
<td>Harsh Discipline</td>
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<td>PO</td>
<td>Positive Reinforcement</td>
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<td>EI</td>
<td>Encourages Independence</td>
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<tr>
<td>IR</td>
<td>Inductive Reasoning</td>
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<tr>
<td>EC</td>
<td>Easily Coerced</td>
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Parenting Scales

<table>
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<tr>
<th>Scale Abbreviation</th>
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<tbody>
<tr>
<td>HS</td>
<td>Hostility</td>
</tr>
<tr>
<td>VA</td>
<td>Verbal Attack</td>
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<td>AT</td>
<td>Physical Attack</td>
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<td>CT</td>
<td>Contempt</td>
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<td>AC</td>
<td>Angry Coercion</td>
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<td>EH</td>
<td>Escalate Hostile</td>
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<td>RH</td>
<td>Reciprocate Hostile</td>
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<tr>
<td>DO</td>
<td>Dominance</td>
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<tr>
<td>LM</td>
<td>Lecture/Moralize</td>
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<tr>
<td>IT</td>
<td>Interrogation</td>
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<tr>
<td>DE</td>
<td>Denial</td>
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<td>WM</td>
<td>Warmth/Support</td>
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<tr>
<td>ED</td>
<td>Endearment</td>
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<tr>
<td>AF</td>
<td>Physical Affection</td>
</tr>
<tr>
<td>EW</td>
<td>Escalate Warmth/Support</td>
</tr>
<tr>
<td>AR</td>
<td>Assertiveness</td>
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<tr>
<td>LR</td>
<td>Listener Responsiveness</td>
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<tr>
<td>CO</td>
<td>Communication</td>
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<td>PR</td>
<td>Prosocial</td>
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<td>AN</td>
<td>Antisocial</td>
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<td>Avoidant</td>
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### Individual Characteristic Scales

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<th>Code</th>
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<tr>
<td>PA</td>
<td>Physically Attractive</td>
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<tr>
<td>HU</td>
<td>Humor/Laugh</td>
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<td>SD</td>
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<td>AX</td>
<td>Anxiety</td>
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<td>WC</td>
<td>Whine/Complain</td>
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<td>Externalized Negative</td>
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<td>PM</td>
<td>Positive Mood</td>
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<td>RR</td>
<td>Rater Response</td>
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### Dyadic Relationship Scales

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<th>Code</th>
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<tr>
<td>SP</td>
<td>Silence/Pause</td>
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<tr>
<td>RQ</td>
<td>Relationship Quality</td>
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### Group Interaction Scales

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<thead>
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<th>Code</th>
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<tbody>
<tr>
<td>GE</td>
<td>Group Enjoyment</td>
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</table>
References


Coatsworth, J. D., Duncan, L. G., Greenberg, M. T., & Nix, R. L. (2010). Changing parents’ mindfulness, child management skills, and relationship quality with their youth: Results


