PARENT AND CHILD PERSPECTIVES OF MINDFUL PARENTING IN THE UK AND TURKEY: ASSOCIATIONS WITH PSYCHOLOGICAL ADJUSTMENT AND WELLBEING

By

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Declaration

I, Pinar Acet, confirm that the work presented in my thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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Abstract of the Thesis

Mindful parenting is a burgeoning research interest, but there are still significant gaps in the literature. This PhD thesis addressed these gaps by first conducting a systematic narrative review to conceptualise a Process of the Mindful Parenting Model. Results indicated that mindful parenting might be multiply determined by characteristics of parents, children, family social environment, and parenting stress, but child perspectives on mindful parenting have been overlooked. To address this, this thesis developed and validated parallel the Mindful Parenting Inventories for Parents (MPIP) and Children (MPIC) in mothers and their typically developing children aged 11-16 years in the UK and Türkiye. MPIP/MPIC consisting of 18 items and four factors, showed promise in measuring mindful parenting from mother and child perspectives in both cultures, with acceptable validity.

Second, this thesis empirically tested the Process of the Mindful Parenting Model across cultures, utilising MPIP/MPIC. Specifically, I examined whether child temperament, social support, and parental psychological distress influenced mother- and child-reported mindful parenting in the UK and Türkiye. Results revealed that child negative emotionality was a direct predictor of mindful parenting in the UK only. However, child negative emotionality and social support were indirect predictors of mindful parenting through maternal psychological distress in both cultures.

Then, I explored the mediating and moderating roles of mindful parenting in the relationship between household chaos and child problem behaviours across cultures. Results showed that household chaos was a significant indirect predictor of child problem behaviours via mindful parenting in both countries. Furthermore, mindful parenting moderated the link between household chaos and child problem behaviours in the UK.

Additional research is encouraged to thoroughly examine the factor structure and validity of MPIP/MPIC and the Process of the Mindful Parenting Model across diverse cultures and populations. Furthermore, exploring bidirectional associations within the model would also be beneficial.

Impact Statement

This PhD project has the potential to generate numerous impactful research outcomes. Firstly, a systematic narrative review (Chapter 3) provides preliminary evidence of the associations between mindful parenting and various factors such as parent characteristics, child characteristics, family social environment, and parenting stress. This review serves as a foundation for further exploration and understanding of mindful parenting.

The subsequent two empirical studies (Chapter 4 and Chapter 5) introduce innovative Mindful Parenting Inventories for Parents and Children (MPIP/MPIC) that facilitate direct comparisons between parent and child perceptions of mindful parenting. This groundbreaking approach has significant implications for mindful parenting interventions, empowering practitioners to assess the intervention's effectiveness from the perspectives of both parents and children. By considering the viewpoints of both parties, interventions can be tailored to address the needs and experiences of both parents and children, leading to more comprehensive and practical support. I presented the feasibility study as a poster titled "Initial Development of the Mindful Parenting Inventories for Parents and Children" at the 7th IPPA World Congress. Furthermore, I presented the comparison of the UK and Türkiye versions of MPIP/MPIC at the VNOP conference in Utrecht.

Furthermore, the last two empirical studies shed light on culture-specific and culture-generic associations of mindful parenting. Specifically, maternal psychological well-being plays a critical role in the relationships between child negative emotionality and social support with mindful parenting across the UK and Türkiye (Chapter 6). This finding emphasises the importance of prioritising interventions to enhance mothers' psychological well-being in preventive and therapeutic programs for non-clinical samples. Additionally, it highlights the significance of cross-cultural research in

mindful parenting, illustrating cultural variations in maternal vulnerability to child negative emotionality. It is recommended that further cross-cultural investigations be conducted to identify differences and similarities in the determinants of mindful parenting to facilitate the interventions for parents less likely to adopt mindful parenting practices in various cultures.

Finally, the study presented in Chapter 7 reveals an association between household chaos and mindful parenting skills and child behaviours in both the UK and Türkiye. Furthermore, it suggests that mindful parenting interventions can mitigate the negative influence of chaos on parenting, particularly in Türkiye. Raising mindful parenting through intervention might be able to diminish the negative impact of a chaotic environment on children and help maintain a nurturing environment.

Overall, this PhD thesis on mindful parenting across cultures significantly advances our understanding of the associations between mindful parenting and various factors within diverse cultural contexts. The findings provide valuable insights for researchers, practitioners, and policymakers dedicated to enhancing mindful parenting interventions. These contributions have the potential to foster the well-being and development of children and families worldwide.

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List of Abbreviations

AC	Awareness of Child
APQ	Alabama Parenting Questionnaire
ARS	Anger Rumination Scale
BMC	Being in the Moment with Child
BMPS	Bangor Mindful Parenting Scale
CA	Compassion and Acceptance
CC	Compassion toward Child
CFI	Comparative Fit Index
CHAOS	Confusion, Hubbub, and Order Scale
CI	Confidence Intervals
CSC	Compassion for Self and Child
DASS	Depression Anxiety and Stress Scale
EAC	Emotional Awareness of Child
EAFC	Empathy and Acceptance for Child
EAS	Emotional Awareness of Self
EASC	Emotional Awareness of Self and Child
EASTS	Emotionality Activity Sociability Temperament Survey
ENRP	Emotional Nonreactivity in Parenting
ESR	Emotional Self-regulation
FFMQ	Five Facet Mindfulness Questionnaire
IEM	Insight into Effect of Mood
IFA	Interacting with Full Attention
IM-P	Interpersonal Mindfulness in Parenting Scale
IMS	Interpersonal Mindfulness Scale
KIMS	Kentucky Inventory of Mindfulness Skills

LFA	Listening with Full Attention
M	Mean
MCAR	Missing Completely at Random
MIPQ	Mindfulness in Parenting Questionnaire
MPIC	Mindful Parenting Inventories for Children
MPIP	Mindful Parenting Inventories for Parents
MSPSS	Multidimensional Scale of Perceived Social Support
NCF	Noticing Child's Feeling
NJAP	Non-judgemental Acceptance of Child
NJAPF	Nonjudgmental Acceptance of Parental Functioning
NJAS	Nonjudgmental Acceptance of Self
NJASC	Nonjudgmental Acceptance of Self and Child
RMSEA	Root-Mean-Square Error of Approximation
SCS	Self-Compassion Scale
SD	Standard Deviation
SDQ	Strengths and Difficulties Questionnaire
SES	Socio-Economic Status
SRMR	Standardised Root-Mean-Square Error of Approximation
SRP	Self-Regulation in Parenting
TR	Türkiye
UK	United Kingdom

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Chapter 1

General Introduction

General Introduction

Parenting has long been considered crucial to a child's adjustment, such that several models have been conceptualised to understand the parenting process better. Of those, particularly, so-called "traditional" models of parenting styles (i.e., authoritative, authoritarian, permissive, and neglecting parenting; Baumrind, 1966) and practices (e.g., positive and negative parenting; Parent & Forehand, 2017) have dominated parenting research so far. However, in parallel with the growing interest in trait mindfulness and mindful practice in psychology (Lee et al., 2021), mindful parenting has gained significant attention in recent years, especially in adolescence (Duncan et al., 2009). The main focus of this thesis is on parenting skills of being aware of and paying non-judgmental and intentional present-moment attention both to one's child and one's own parenting, namely, on 'mindful parenting' (Kabat-Zinn & Kabat-Zinn, 1997).

Mindful parenting is assumed to improve parent and child psychological adjustment outcomes and parent-child interactions (Duncan et al., 2009). So far, a growing body of research has provided empirical support for this assumption (i.e., Kim & Gonzales, 2021; Larrucea-Iruretagoyena & Orue, 2023; Lippold et al., 2021). However, this is a relatively new field; as such, there are important gaps in the mindful parenting literature, and our understanding lags behind the broader parenting literature (*see* also Chapter 3). First, there has been extensive theorisation and empirical investigation of determinants of traditional parenting, with arguably the most influential of these models being that of Belsky (1984). Yet conceptualisation of determinants of mindful parenting has been understudied. Second, although broader parenting research has expanded its scope to cover not only parent but also child perceptions of parenting, mindful parenting research has primarily focused on the parent perspective, largely overlooking the child perspective. Moreover, the role of the cultural context in the

determinants and outcomes of mindful parenting, that is, in the process of mindful parenting, remains unknown.

This PhD thesis aims to bridge these gaps by exploring the process of the mindful parenting model, considering both parent and child perceptions of mindful parenting in parents and their children living in the UK (an autonomous culture) and Türkiye (an autonomous-relational culture). In order to achieve this overarching goal, the studies in this thesis comprised five specific aims. These aims are to (1) review existing literature systematically and propose a process of the mindful parenting model, providing a framework for the subsequent research; (2) develop and validate the *Mindful Parenting Inventories for Parents and Children* (MPIP/MPIC) in the UK; (3) cross-validate MPIP/MPIC in Türkiye; (4) examine "determinants" and (5) "outcomes" of both parent- and child-reported mindful parenting measured by the new partner inventories across the UK and Türkiye.

This introductory chapter provides an overview of the theoretical and empirical literature, offering essential context for the studies in this thesis. First, the Mindful Parenting Model and relevant literature are introduced, with an emphasis on the child outcomes of mindful parenting. Second, the Process of the Parenting Model and Ecological Systems Model of Child Adjustment are presented, respectively. Finally, the rationale and main aims of the thesis are provided, along with the gaps in the existing literature.

Mindful Parenting Model

Mindful parenting was initially defined by Kabat-Zinn and Kabat-Zinn (1997) as the ability to pay deliberate and non-judgmental 'here-and-now attention' to one's own parenting and the child. They identified three foundations of mindful parenting. The first foundation is sovereignty, which refers to recognising and encouraging the child's

true self. The second foundation, empathy, is about taking the child's perspective and showing compassion towards them. Finally, the third foundation, acceptance, requires accepting the child as they are, which augments sovereignty and empathy. Drawing on mindfulness literature, however, Duncan et al. (2009) have provided the most comprehensive model of mindful parenting to date, suggesting five self-explanatory dimensions of mindful parenting (i.e., *Listening with Full Attention to Child, Non-Judgmental Acceptance of Self and Child*, *Compassion for Self and Child*, *Emotional Awareness of Self and Child* and *Self-regulation in Parenting Relationship; see* Fig. 1.1).

Listening with Full Attention describes being entirely in the moment with the child and focusing on what and how they do or talk about things. *Non-Judgmental Acceptance of Self and Child* is about the parent accepting and acknowledging themselves and their own needs as a parent, and that child may have unique needs and desires. Ultimately, it is for parents to accept both themselves and also their child as they are, without judgment and with all feelings, thoughts, and behaviours. *Compassion for Self and Child* involves parents being patient, kind and warm towards themselves and their child. *Emotional Awareness of Self and Child* refers to the parent's ability to pay intentional attention to the emotions of both themselves and the child in order to recognise and identify them. Finally, *Self-regulation in Parenting Relationship* includes being non-reactive to both these emotions and child behaviours through effective emotion regulation (Duncan et al., 2009). As illustrated in Figure 1.1, the Mindful Parenting Model also suggests that practising these skills promotes positive child management and parenting practices, parental well-being, parent-child affection, and, importantly, child adjustment. These outcomes of mindful parenting suggested by the model are described in detail below.

Overall, this novel approach to parenting differs significantly from more traditional parenting models. Mindful parenting, for example, involves monitoring parents' own emotions, behaviours, and attention during parent-child interactions, unlike traditional parenting models that focus on the children's behaviour. Moreover, mindful parenting describes "here-and-now" parenting, where parents pay deliberate attention to parent-child interaction; thus, it requires fundamental mindfulness skills (Duncan et al., 2009). Finally, mindful parenting views parenting as a learning journey where parents can gain insights from their children, while more traditional approaches tend to assume parents as the primary "experts" (Kabat-Zinn & Kabat-Zinn, 1997). Indeed, several studies have reported that traditional and mindful parenting explain independent variance in chosen outcomes (e.g., Geurtzen et al., 2015).

Fig. 1.1 The Mindful Parenting Model. *Note.* The image is taken from Duncan et al. (2009, p. 261)
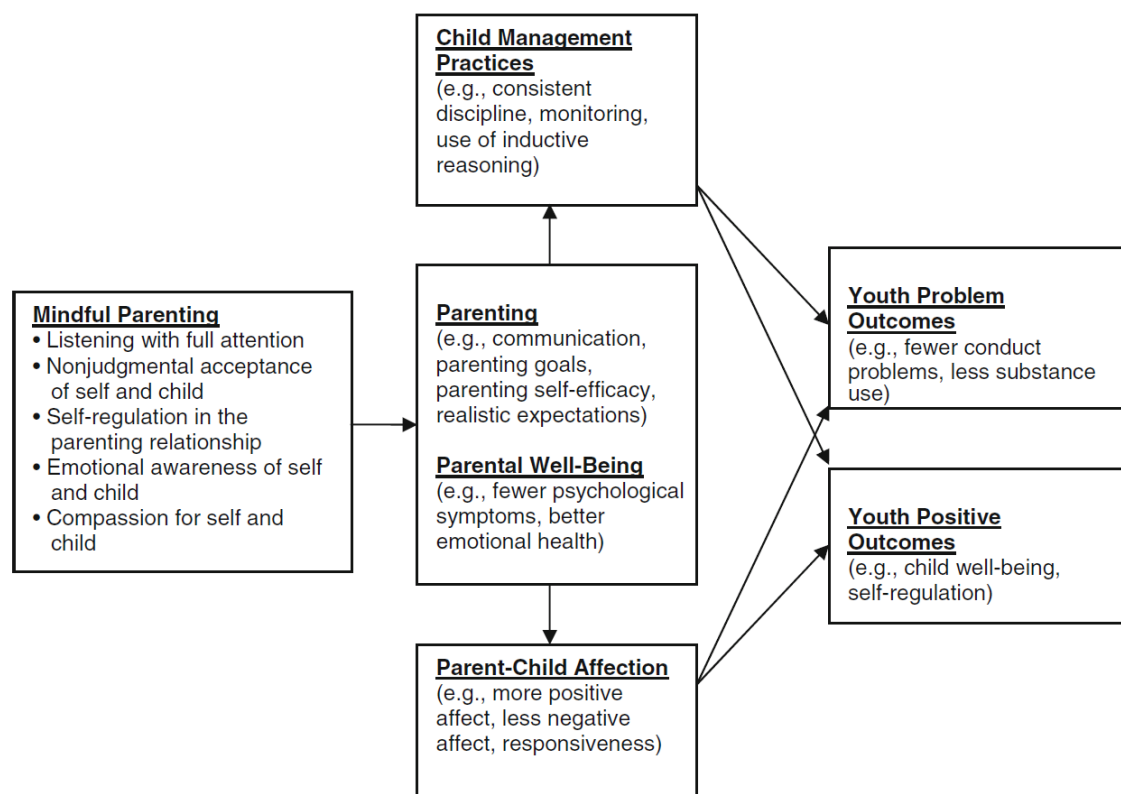
Measuring Mindful Parenting

Although mindful parenting was first defined 25 years ago (Kabat-Zinn & Kabat-Zinn, 1997), empirical studies long focused only on the assessment of parents' intrapersonal (dispositional) mindfulness rather than mindful parenting per se (e.g., Bögels et al., 2008; Maloney & Altmaier, 2007). This is important since high dispositional mindfulness might not necessarily be adaptable to the parenting context; that is to say, mindfulness in parenting may not be the same as mindful parenting (Duncan, 2007). As such, it was argued that mindfulness, defined as bringing non-judgmental and purposeful awareness to present experience, needed to be extended to the interpersonal context of parent-child relationships (Duncan et al., 2009). Subsequently, several scales have been developed to measure mindful parenting, as described below. Moreover, studies using these standard measures of mindful parenting have reported that dispositional mindfulness and mindful parenting explain independent variance in chosen outcomes, despite the moderate-to-high correlation between these two constructs (e.g., Han et al., 2021; Gouveia et al., 2016; Zhang et al., 2019).

Duncan et al.'s (2009) mindful parenting model described above has become the theoretical basis for the widely used self-reported scale in the literature to assess the distinctive aspects of mindful parenting among parents of adolescents, i.e., the Interpersonal Mindfulness in Parenting Scale (IM-P; de Bruin et al., 2014). The original IM-P consisted of 10 items and three factors: *awareness and present-centred attention, non-judgment,* and *non-reactivity* (Duncan, 2007). IM-P has since been expanded to 31 items covering all five of Duncan et al.'s (2009) dimensions of mindful parenting (de Bruin et al., 2014). IM-P and its variations have been adapted to many languages, including Dutch (de Bruin et al., 2014), Portuguese (Moreira & Canavarro, 2017), Chinese (Lo et al., 2018; Pan et al., 2019), Korean (Kim et al., 2019), and Chilean (Corthorn et al., 2022).

The Mindfulness in Parenting Questionnaire (MIPQ; McCaffrey et al., 2017), the second most used mindful parenting scale, is a 28-item scale comprising two factors: *Being in the Moment with the Child* and *Mindful Discipline*. MIPQ was developed and validated in a sample of parents of a wide age range of children (2-16 years) to measure state-based mindful parenting at a specific period in time (i.e., over the past two weeks). MIPQ has since been adapted to Chinese (Wu et al., 2019), Spanish (Orue et al., 2020), Turkish (Gördesli et al., 2018) and Croatian (Reić-Ercegovac & Ljubetić 2019) languages. Finally, the least widely used self-report mindful parenting scale is the Bangor Mindful Parenting Scale (BMPS), which has been argued to mainly aim to evaluate changes in mindful parenting due to intervention (Jones et al., 2014). Validated in parents of children with autism aged 7-16 years, BMPS consists of 15 items from the Five Facet Mindfulness Questionnaire (FFMQ; Baer et al., 2006) adapted to the parenting context.

However, none of these mindful parenting scales has been validated for child reports. This thesis aims to bridge this gap by developing parallel inventories to assess parents' and children's perceptions of mindful parenting.

Outcomes of Mindful Parenting

As detailed above, Duncan et al. (2009) suggested the mindful parenting model, which provides an operational definition as well as outcomes of mindful parenting. Figure 1.1. illustrates that mindful parenting promotes child management and parenting practices, parent-child affection, and parental well-being, spilling over to child adjustment (Duncan et al., 2009). Here, I review recent literature on mindful parenting, mainly focusing on child adjustment. Note that the majority of the literature in this area assumes mindful parenting-on-child/parent effects. Although a substantial amount of research on mindful parenting has focused on the practice of mindful parenting, few

research designs explicitly allow the examination of that assumption. This critical issue is discussed in Chapter 3 (pp 77-78).

Parenting and Child Management

Duncan et al.'s (2009) model claims that practising mindful parenting improves parenting and child management, which in turn improves child adjustment (*see* Fig. 1.1). Indeed, recent empirical work has shown mindful parenting to be correlated with improved child management (e.g., inductive reasoning; less reactivity) and parenting (e.g., consistent discipline, parent-child communication, parenting-efficacy) (Duncan et al., 2015; Lippold et al., 2021; Park et al., 2020). Notably, higher mindful parenting scores predicted more parenting efficacy at a later time after controlling for the effect of earlier parenting efficacy (Lippold et al., 2021).

Moreover, parents of clinically-referred children reported higher parenting efficacy after mindful parenting intervention than at baseline (Bögels et al., 2014; Emerson et al., 2021; Mah et al., 2021), although not parents of typically-developing children (Chaplin et al., 2021). Parents (predominantly mothers) who received the intervention also reported more improvement in parental discipline (e.g., less reactivity; Emerson et al., 2021; Mah et al., 2021; Potharst et al., 2019; 2021; van der Oord et al., 2012), rule communication, inductive reasoning, and monitoring (Coatsworth et al., 2015) at post-test and follow-up up to one year compared to pre-test and the control group. Moreover, the improvement was comparable between parents of clinically-referred children and typically developing children (Potharst et al., 2021). Notably, the intervention-related increase in mindful parenting was somewhat associated with improved child management practices (e.g., inductive reasoning, monitoring, parental guidance, discipline, Coatsworth et al., 2015; 2018), which reduced child externalising behaviours (Emerson et al., 2021).

Parent-Child Affection

Parent-child affection refers to the emotional bond and expression of closeness and affirmation between parents and their children (Lee & Kang, 2018). It plays a vital role in promoting healthy child development (Roberts & Bengtson, 1993). In line with Duncan et al.'s (2009) argument, mindful parenting has been found to be associated with promoted parent-child affection, such as more positive and less negative responsiveness (Dieleman et al., 2021; McKee et al., 2018), more secure parent-child attachment (Zhang et al., 2019) and less negative affect during parent-child interaction (Coatsworth et al., 2010; Duncan et al., 2015; Turpyn & Chaplin, 2016). Furthermore, intervention studies have found that parents with clinical (i.e., ADHD; Gershy et al., 2017) and non-clinical samples of children (Chaplin et al., 2021; Coatsworth et al., 2015) reported fewer negative feelings towards their child after mindful parenting intervention.

Parent Psychological Well-being

According to foundational models, mindful parenting is associated with parental psychological well-being, and in turn, with child adjustment (Duncan et al., 2009; Kabat-Zinn & Kabat-Zinn, 1997). Mindful parenting has been posited to help parents break the repetitive thinking loops (i.e., rumination, an important triggering and maintaining factor of depression and anxiety; Ehring & Watkins, 2008; Nolen-Hoeksema, 1991; Papageorgiou & Wells, 1999), resulting in less psychological distress (Moreira & Canavarro, 2018a). Subsequent research has reported a significant relationship between mindful parenting and parent psychological outcomes directly and indirectly through parental self-critical rumination (Moreira & Canavarro, 2018b). Several narrative (Shorey & Ng, 2021; Townshend et al., 2016) and meta-analytic reviews (Anand et al., 2021; Burgdorf et al., 2019; Petcharat & Liehr, 2017) have also suggested that parents who engage in mindful parenting practices experience small-to-

moderate improvement in their psychological functioning after mindful parenting intervention.

Child Adjustment

As discussed above, mindful parenting associates with improved parent-child relationships, affection, and psychological well-being. As such, mindful parents who are able to regulate their own and their children's emotions, as well as parent-child conflict, particularly during the challenging transition to adolescence, are believed to promote child adjustment (Duncan et al., 2009). Indeed, to the best of my knowledge, two cross-lagged panel studies, taking into account child-on-parent effects, were conducted and demonstrated the impact of mindful parenting on children's emotional and behavioural difficulties (Kim & Gonzales, 2021; Larrucea-Iruretagoyena & Orue, 2023). However, although commonly unable to account for the child-on-parent effects (*see* the Discussion section of Chapter 3 and the General Discussion chapter in Chapter 8 for further details), empirical studies seem to support this, reporting higher mindful parenting to be associated with lower internalising (e.g., anxiety, depression) and externalising (e.g., disruptive behaviours, aggression) child behaviours as well as higher prosocial child behaviours (e.g., Cheung et al., 2021). Importantly, the association between mindful parenting and child adjustment was found to be significant even after accounting for traditional parenting behaviours (Geurtzen et al., 2015) and parental dispositional mindfulness (Zhang et al., 2019).

Moreover, intervention studies have reported small-to-moderate effects of mindful parenting interventions on children's outcomes (Bögels et al., 2014; Emerson et al., 2021; Meppelink et al., 2016; Potharst et al., 2019; 2021); two meta-analytic studies have combined the results (i.e., Burgdorf et al., 2019; Friedmutter, 2015). While the earlier meta-analysis found that mindful parenting interventions had no significant effect on children's internalising and externalising behaviours (Friedmutter, 2015), the

more recent one found a small but significant positive impact of the interventions on internalising and externalising behaviours, as well as cognitive and social functioning (Burgdorf et al., 2019). Furthermore, from the parents' perspectives, intervention-related increases in mindful parenting were generally associated with fewer attentional (Emerson et al., 2021) and behavioural problems in children (Coatsworth et al., 2018; Potharst et al., 2021).

However, these findings are limited because both correlational (Kil et al., 2021) and intervention studies (Kil & Antonacci, 2020) were primarily based on parent reports of mindful parenting and child outcomes. In fact, several studies have found no improvement after mindful parenting interventions in studies with observational (Altmaier & Maloney, 2007), non-participating parent-reported (Potharst et al., 2019) or teacher-reported child problem behaviours (van der Oord et al., 2012). It is thus plausible that shared method variance (Podsakoff et al., 2012) may inflate the revealed relationship between mindful parenting and child adjustment. More importantly, we do not know yet whether these interventions promote any improvement in mindful parenting in ways observable to children. This is likely important because the augmentation in child adjustment may primarily rely on the shift in children's perceptions of mindful parenting rather than those of their parents. The role of children's perspectives of mindful parenting for child adjustment thus needs further investigation. This is one of the main aims of this thesis.

Process of Parenting Model

There has been extensive theorisation and empirical investigation of determinants of traditional parenting (i.e., Belsky, 1984). Using the child-abuse literature, Belsky (1984) suggests a Process of Parenting Model in which parenting is seen to be determined by multiple factors in three broad domains: parents' personal

psychological resources (e.g., personality, depression), child characteristics (e.g., temperament), and contextual sources of stress and support (e.g., marital and social relationships). Moreover, it has been argued that these factors do not independently contribute to parenting and child development; instead, they exhibit reciprocal relationships to shape the parenting process mutually (Belsky, 1984; Belsky & Jaffee, 2006).

Determinants of Parenting

The determinants of mindful parenting are discussed in Chapter 3. Here, I give particular emphasis to the three aspects of the model that are the focus of this thesis: social support, child temperament and parental psychological well-being.

Parent Characteristics

The Process of Parenting Model (Belsky, 1984; Belsky & Jaffee, 2006) posits that parental personality and psychopathology (e.g., depression), shaped by parents' developmental history, greatly influence each system in the parenting process and are, therefore, of central importance. Here, particular interest is given to parental psychopathology and psychological well-being.

Cognitive theory suggests that experiencing psychological distress leads to biased information processing, in which individuals with depression tend to prioritise negative self-referential information, while individuals with anxiety display selective processing focused on threat and danger (Clark & Beck, 2010). Accordingly, on the one hand, depression has the potential to induce a redirection of goal orientation and attention away from the child and towards the parents themselves, accompanied by increased negative evaluations and emotions directed towards children (Dix & Meunier, 2009). As a result, parents experiencing depressive symptoms may be emotionally less available to their children, depriving them of parental emotional support,

responsiveness, and warmth (Biringen, 2000). For example, numerous studies have linked maternal and paternal depression to parenting behaviours, such as decreased warmth, sensitivity, and responsiveness and increased intrusiveness and disengagement (for meta-analysis, *see* Lovejoy et al., 2000; Wilson & Durbin, 2010). On the other hand, anxiety may increase the tendency to focus on potential dangers and interpret neutral stimuli as threatening, so anxious parents may adopt more restrictive and controlling parenting styles (Lindhout, 2006). Indeed, a systematic review encompassing 16 studies revealed a small-to-moderate association between maternal anxiety and overprotective parenting behaviours (Jones et al., 2021).

Importantly, parenting is recognised as one of the central mechanisms underlying the intergenerational transmission of psychological problems (e.g., depression; Goodman et al., 2020a). Furthermore, a recent meta-analytic study also showed that maternal depressive symptoms manifest their effects on child adjustment through parenting (Goodman et al., 2020b). This implies that modifying parenting behaviour may interrupt the transmission of psychological issues across generations. Taken together, it is evident that parental psychological well-being plays an important role in shaping parenting and, in turn, child development.

Child Characteristics

Determining the quality of parenting they receive, and in turn, their own development, children have been recognised as 'active agents' in the parenting process (Corsaro, 2005). Accordingly, Belsky's model (1984) defines "difficult" child temperament, characterised by higher negative emotionality and lower affiliation, effortful control and surgency (Rothbart et al., 2011), as a child-related factor undermining parenting.

Despite the ongoing debate on the causal direction of the association (Putnam et al., 2002), child negative emotionality, along with the different aspects of "difficult" temperament (e.g., low effortful control), have been well-documented to be related to more negative parenting behaviours (for meta-analysis, *see* Paulussen-Hoogeboom et al., 2007; Xu, 2022). For example, a latent growth model study showed that infants with higher negative emotionality from 4 to 12 months old experienced more negative parenting at 18 months old (Bridgett et al., 2009). Importantly, a cross-lagged panel study found that child behavioural inhibition at age 3 significantly predicted parenting at age 5 (Liu et al., 2020). In adolescents, it was also observed that parents of more "difficult" adolescents elicit more punitive responses to their youths' expressed affect during parent-adolescent interaction tasks (Yap et al., 2008). Similarly, adolescents with more emotion and impulse regulation difficulties and lower positive emotionality were shown to receive more punitive parental responses (Nyquist et al., 2019). Together, these findings demonstrate the significance of a child's temperament in influencing the way parents raise them.

Family Social Environment

Last but not least, Belsky's model (1984) suggests social support, marital quality, and work-related factors as contextual sources of stress and support for parenting. Accordingly, supportive family social environments may improve parental competence (Bornstein, 2013; Lippold et al., 2018) and psychological well-being (Cairney et al., 2023), resulting in more adaptive parenting. Of interest, social support has repeatedly been shown to increase parental warmth (Lippold et al., 2018), sensitivity (Lee et al., 2020), and involvement (Hamme Peterson et al., 2010), as well as decrease parental hostility (Lippold et al., 2018) and over-reactivity (Taraban et al., 2019).

Updating Belsky's framework, Taraban and Shaw (2018) emphasised the interacting impact of contextual factors (e.g., support, socioeconomic status (SES), and culture) in the parenting process, suggesting that the direct and indirect influences of determinants on parenting may differ across contexts. As discussed in Chapter 6, studies have supported the differential associations of child temperament, social support, and parental psychological distress with parenting across cultures. For instance, different cultures have varying degrees of importance regarding social support during stressful times (Zheng et al., 2021). As such, social support may not be the primary factor influencing parenting in cultures that prioritise independence (i.e., autonomy-oriented cultures). Conversely, in cultures where interdependence (i.e., relatedness-oriented cultures) is valued, the absence of support may have a more detrimental impact on parenting behaviours. As also discussed in Chapter 6, however, there is not yet enough empirical research investigating this, and our limited knowledge indicates that social support has similar effects across different cultures (Serrano-Villar et al., 2017).

Cultural norms and values also significantly influence parents' expectations and perceptions regarding their child's temperament. For example, in more autonomy-oriented societies, children's open expression of emotions is often considered normal and acceptable (Cho et al., 2022). Furthermore, in such societies, a child's high assertiveness may be seen as a sign of self-sufficiency (Friedlmeier et al., 2011). Conversely, in more relatedness-oriented societies, such expressions may be deemed disruptive, leading parents to discourage such behaviours (Friedlmeier et al., 2011). Indeed, a cross-cultural study demonstrated that Chinese immigrant mothers, who hold interdependency-oriented values, were more likely to exhibit non-supportive behaviours when confronted with their children's negative emotions than European American mothers who hold more independence-oriented values (Yang et al., 2020). However, although this influence is evident in how parents in different cultures perceive and react

to children's emotional expressions, our knowledge about the connections between parenting and child temperament is mainly based on autonomy-oriented --mostly Western-- cultures (Porter et al., 2005).

Overall, recognising cultural variations in social and emotional processes is vital, as it can profoundly affect parents' psychological well-being and, consequently, parenting and child development. Moreover, there is a need for studies to be conducted in cultures situated at various positions along the cultural values scale, especially in autonomous-relational cultures situated halfway between autonomy- and relatedness-oriented cultures such as Türkiye. Please refer to the *Cross-cultural Research* section below for a more detailed definition and in-depth discussion of cultural values.

Ecological Systems Model of Child Adjustment

Children live in complex and dynamic settings, experiencing multiple and interactive effects of environments rather than isolated effects of a particular aspect of their surroundings (Bradley, 2019). Bronfenbrenner's Ecological Systems Theory provides a model for explaining these processes. As illustrated in Figure 1.2, the model suggests a complex and dynamic process of development in which various levels of the child's environment --i.e., micro-, meso-, exo- macro-, and chrono-environment-- directly, indirectly, and interactively influence children's behaviours (Bronfenbrenner & Evans, 2000).

Fig. 1.2 Ecological Model of Child Adjustment
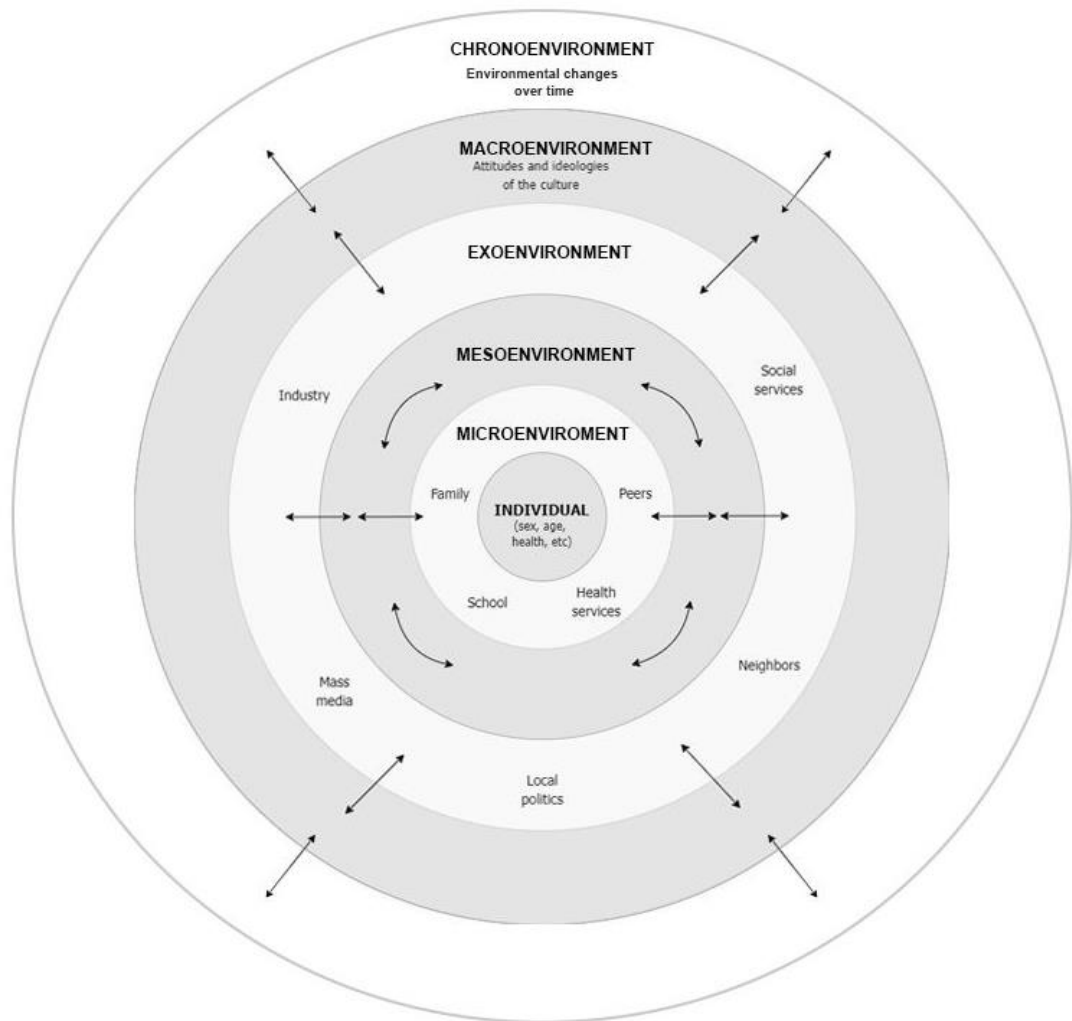
Note. Adapted from

https://commons.wikimedia.org/wiki/File:Bronfenbrenner%27s_Ecological_Theory_of

_Development.png

The microenvironment refers to the physical (e.g., noise at home) and social (e.g., parents, siblings) aspects of a child's environment in which the child is actively involved. As such, the microenvironment is considered to have the most immediate influence on child adjustment. The mesoenvironment describes the more distal systems that interact directly with the microsystem, such as the family's sources of social support. The exoenvironment consists of the broader surroundings, such as media and parents' workplace, which not directly but indirectly influence child adjustment. The macroenvironment includes cultural (e.g., values about parenting), political (e.g., government regulations) and socio-economic (e.g., poverty) context, which can differ based on geographic region or ethnicity. Thus, the multiple levels of environment-child interaction are embedded in the macroenvironment (Bronfenbrenner & Evans, 2000; Bronfenbrenner & Morris, 2006). Finally, the chronoenvironment recognises the process of change over time in the interactions between a child and their environments. In the present section, I review the single and multiple impacts of the physical and social microenvironment as well as the macroenvironment on child behaviours. Specifically, by way of a framework for aspects of the child's environment explored in the current thesis, I focus on parenting, household chaos, and an often overlooked aspect of the macroenvironment, namely, culture.

Household Chaos, Parenting, Child Adjustment, and Culture

Household chaos, characterised by high noise, crowds, disorganisation, instability and lack of routine at home, is a critical aspect of the child's physical microenvironments (Ackerman & Brown, 2010; Wachs, 2010). Household chaos can directly interfere with children's adjustment. For instance, excessive noise (e.g., high TV volume) and crowding (e.g., shared room), and lack of routine (e.g., screen time, bedtime) can disturb children's sleep patterns (Spilsbury et al., 2017). Similarly, instability and disorganisation can inhibit the development of children's emotional and

attentional regulatory systems, undermining executive functions (Andrews et al., 2021) and academic achievement (Garrett-Peters et al., 2016).

In addition, household chaos can indirectly affect children's adjustment by first interfering with the immediate social environment, such as parents. That is, uncontrolled high-context traffic and the lack of structure in the home environment may result in a lack of parental responsivity, availability, and involvement, ultimately adversely impacting child adjustment (Wachs, 2010). Existing evidence has also indicated that in households with higher levels of chaos, parents tend to exhibit less positive and more negative parenting behaviours, which, in turn, can disrupt child development (e.g., Ackerman et al., 2002; Mills-Koonce et al., 2016; Vernon-Feagans et al., 2012; 2016).

Finally, the ecological model argues that the complex association between household chaos, parenting and child outcomes is moderated by the macroenvironments, such as culture (Bronfenbrenner & Evans, 2000). As previously mentioned, different cultural contexts have distinct values, beliefs, and social structures; this can also impact the effects of household chaos on parenting and child development. In relatedness-oriented cultures, for example, a certain degree of household chaos may be considered more normative and acceptable, resulting in less significant influence on parenting practices and child development. Conversely, emphasis on order and structure may be highly valued in autonomy-oriented cultures, potentially leading to more adverse outcomes when exposed to chaotic environments (Wachs & Çorapçi, 2003).

Moreover, the child outcomes of parenting may depend on culture. Some have argued that parenting might have a culturally specific function for child outcomes (Lansford, 2022), whilst others argued that parenting has similar or universal effects rather than differential effects across cultures, with culture affecting only the strength of the associations (Davidov, 2021). Supporting the latter, a meta-analysis of 428 studies

has reported that authoritarian parenting positively predicted internalising and externalising behaviours in both autonomy-oriented (or individualistic) and relatedness-oriented (or collectivistic) cultures, although the strength of the association was weaker in more individualistic countries (Pinquart & Kauser, 2018). Regarding UK and Turkish families, however, research also showed that parenting practices, in general, have been shown to be a stronger predictor of child outcomes in English families compared to their Turkish counterparts (Aytac et al., 2019). That might imply that while parenting is highly critical to child adjustment in certain cultures, it may be less important in others.

Overall, the Ecological Systems Model suggests that child development is a complex process influenced by various factors across multiple levels of the child's environment. As such, researchers should consider complex interplay across multiple levels of the environment rather than focusing on the isolated impact of a particular environment on child adjustment (Wachs, 1993). However, limited attention has been directed to the macro-level child environment in this particular context. Thus, this thesis aims to provide a more comprehensive understanding of the intricate dynamics and contribute to the identification of potential cultural variations in the relationships between household chaos, parenting practices, and child outcomes.

Current Thesis

Despite the increase in research on mindful parenting, there are significant gaps in the mindful parenting literature. First, while it is well understood that the determinants of parenting are essential, as well as the outcomes of parenting (Abidin, 1992; Belsky, 1984), there is no systematic synthesis of this literature in the context of mindful parenting specifically. As discussed further below, second, despite understanding the key role of children's subjective experiences when examining parenting practices, mindful parenting studies are limited to relying on parents' self-report measurements of mindful parenting. Third, despite the critical significance of

mindful parenting during the transition to adolescence (Duncan et al., 2009), there is a lack of research explicitly targeting adolescents in this context. Fourth, in a similar vein, studies are scarce to deepen our understanding of mindful parenting to typically developing children. Finally, despite the well-established evidence of culture's impact on the parenting process, there is no cross-cultural research on the mindful parenting process. The current thesis aims to extend the literature, addressing these key concerns.

Perceptions of Mindful Parenting.

Lack of agreement between informants is a common challenge in parenting and developmental research and practice (Hou et al., 2020). Decades of research have reported low congruence between parent-child (Hou et al., 2020; Korelitz & Garber, 2016) and parent-observer (Hendriks et al., 2018) assessments of parenting behaviours, with parents tending to perceive their parenting more favourably (Hou et al., 2020; Korelitz & Garber, 2016), possibly due to social desirability biases (Bornstein et al., 2015). The low concordance between parent and child reports may indicate differing agendas for parents and children or may index parent-child relationship problems (for a meta-analysis, *see* Hou et al., 2020) that are important for children's mental health (Van Heel et al., 2019; Kapetanovic & Boson, 2022).

Moreover, from a phenomenological perspective, children's subjective experience -- sometimes termed the "science of experience" – is considered essential for understanding the role of the family in children's adjustment (Schaefer, 1965) beyond observer or parent perceptions (Cohen & Rice, 1997; Danese & Widom, 2020; Scott et al., 2011). Indeed, evidence suggests that children's perceptions of the parenting they receive, even with biases, may be better predictors of children's outcomes than the perceptions of their parents (Cohen & Rice, 1997; Danese & Widom, 2020). In fact, there is some suggestion that the agreement between child-reported and observed parenting behaviours may be higher than that between parent-reported and observer-

reported parenting, implying that child reports on parenting may be freer of such biases than parent reports (Scott et al., 2011; Sessa et al., 2001). Accordingly, considering multiple perspectives on parenting is essential to increase the validity of measurement as well as to capture a full picture of family relationships and their association with child outcomes (Taber, 2010).

In line with the traditional parenting literature (e.g., Scott et al., 2011), research has also shown that parent-reported mindful parenting may explain only a small amount or no variance in child-reported outcomes (e.g., Moreira & Cristina Canavarro, 2020, Moreira et al., 2018; Park et al., 2020). Besides, a recent review of mindful parenting interventions has concluded that although parents reported a significant improvement in child behaviours, children and observers reported minor or no significant change after mindful parenting training (Donovan et al., 2022). As such, it has been argued that children's subjective experiences of mindful parenting might be more pertinent for understanding child outcomes than parent reports (Liu et al., 2021a; Park et al., 2020).

As mentioned above, however, none of these mindful parenting scales has been validated for child reports. This is an important limitation for the field, not least since parent-reported mindful parenting may explain only a small amount or no variance (e.g., Moreira & Cristina Canavarro, 2020, Moreira et al., 2018; Park et al., 2020) in child-reported outcomes. I argue that it is essential to consider children's subjective experience of mindful parenting to better understand its potential importance for the family. To bridge this gap and facilitate future research, this thesis developed the parallel Mindful Parenting Inventories for Parents and Children (MPIP/MPIC). Throughout the thesis, these inventories were used to gather information on mindful parenting from both parents and children.

Adolescents.

Throughout the thesis, I limited the samples of the empirical studies to the 11-16 year period. The rationale for this decision is based on several key factors. First, the mindful parenting model suggests that mindful parenting is particularly important during the transition to adolescence to adapt to developmental changes (Duncan et al., 2009). For example, this transition demands a shift in parenting roles due to children's growing independence and autonomy, which can induce stress for both parents and children as they adapt to the changes (Lippold et al., 2018). Moreover, this period is characterised by increasing child problem behaviours, which may contribute to parent-child conflict (Coatsworth et al., 2010; Lengua, 2006). Therefore, practising mindful parenting during the transition becomes even more critical as it enables parents to adapt more easily to the changes and effectively manage their own and their child's stress (Duncan et al., 2009).

Second, adolescence is also marked by substantial changes in children's cognitive abilities, including the acquisition of abstract thinking skills (Cowling & Van Gordon, 2022). As such, in contrast to earlier developmental stages, this period is considered critical for gathering reliable and valid child-reported data on parenting (Taber, 2010).

Third, the parent-child agreement on parenting behaviours may vary throughout child development (Tein et al. 1994). Notably, some research has associated adolescence with increased agreement compared to earlier developmental stages (Russel et al., 2016). Despite this, child reports of parenting might still be more critical for child outcomes during this period, even if parents report the outcomes (Barry et al., 2008). Therefore, collecting data from adolescents is crucial to understand the impact of parenting on child adjustment.

Finally, the systematic review (Chapter 3) showed that while some researchers were motivated to use age-specific mindful parenting measures in infants (e.g., Caiado et al., 2020), most targeted broad age groups of children and their parents, ignoring developmental stage-related variety in the parenting process (Darling & Steinberg, 1993). The lack of age specificity may have theoretical and practical issues, such as difficulties in drawing conclusions, comparing or generalising results, and hence in developing more targeted interventions.

Non-clinical Contexts.

Most current mindful parenting research and interventions have primarily focused on families with clinically referred children (Cowling & Van Gordon, 2022; Kil & Antonacci, 2020). However, mindful parenting can be a promising approach for all families, regardless of children's diagnosis or level of functioning. As such, it is necessary to understand the role of mindful parenting in non-clinical contexts. In fact, a recent study has shown that mindful parenting may improve the child functioning not only in clinical settings but also in non-clinical settings (Potharst et al., 2021). In their study, Potharst et al. (2021) reported that mindful parenting interventions can be as feasible and adaptable in non-clinical settings as in clinical settings, offering benefits to families in different ways.

Further research in non-clinical settings is needed to expand the scope of mindful parenting interventions, allowing a broader range of families to benefit. These interventions can promote positive parent-child interaction and child adjustment while also serving as a preventative measure against parent-child conflict and severe child problems (Cowling & Van Gordon, 2022; Kil & Antonacci, 2020). Thus, this thesis focused on typically developing children aged 11-16 years and their parents.

Cross-cultural Research.

Cross-cultural research is a valuable approach for systematically investigating cultural universals and variations in parenting. Furthermore, it serves as a means to empirically test the theoretical models of the parenting process across two or more socially defined groups, such as nationality, ethnicity, region, and religion (Lansford, 2022). These groups can be characterised by their distinct beliefs, behaviours, norms, customs, and values (Lansford, 2022). To define cultural groups in cross-cultural parenting research, a common approach is to categorise cultural values into three main types: autonomy (individualistic), relatedness (collectivistic), and autonomous-relationality (a combination of individualistic and collectivistic values). Accordingly, parents from autonomous cultures aspire for their children to develop early autonomy-related skills, such as assertive communication and uniqueness. In contrast, parents from interdependent cultures prioritise social responsibilities and hierarchies, which are manifested through their child's compliance and harmony (Dennis et al., 2002). Parents from autonomous-relational cultures, however, promote their child's ability to independence while also equally emphasising the importance of relatedness (Corapci et al., 2018). This approach reflects a combination of orientations towards both autonomy and relatedness.

Traditional parenting literature suggests culture-common and culture-specific challenges in parenting across cultures located at various points along the autonomy-relatedness scale (Havighurst et al., 2022). For instance, parents from relatedness-oriented cultures (i.e., Iran and China) may consider coaching as permissiveness, unlike their counterparts from autonomy-oriented (i.e., Germany) and autonomous-relational cultures (i.e., Turkish). Moreover, Turkish parents may experience more difficulties regulating their emotional reactions in parent-child interactions compared to both autonomy-oriented (i.e., Germany) and relatedness-oriented cultures (i.e., China;

Havighurst et al., 2022). Importantly, the influence of traditional parenting on child outcomes may differ in Turkish families compared to families in more autonomy-oriented cultures (e.g., Aytac et al., 2019; Güngör & Bornstein, 2010; Newman et al., 2015) and more relatedness-oriented cultures (Newman et al., 2015). However, other than in Far Eastern (highly interdependent, i.e., China (Wang et al., 2018a) and Korea (Kim et al., 2019)) and Western (highly autonomous, i.e., USA (Parent et al., 2016a; 2016b) and Netherlands (de Bruin et al., 2014)) countries, little consideration has been given to mindful parenting in autonomous-relational cultures considered halfway between autonomy- and relatedness-oriented cultures, such as Türkiye (Kağitçibasi,1996; Göregenli, 1997; Newman et al., 2015). Therefore, in this thesis, I use the country as a proxy for culture, aiming to assess the model of the mindful parenting process across the UK with autonomy-oriented values and Türkiye with autonomous-relational values (Kağitçibasi, 1996).

Accordingly, first, I explored whether mindful parenting represents the same conceptual and theoretical meaning across the UK and Türkiye (Chapter 5). When an inventory is adapted to different languages, it is assumed that it measures the same construct as in the culture in which it was developed. However, the same concepts may have different meanings across cultures, especially parenting-related ones. Approving this, the adapted mindful parenting inventories generally fail to maintain the same structure of original mindful parenting scales, which makes it difficult to reliably compare study findings across cultures (*see* Chapter 3). As such, to ensure reliable cross-cultural comparisons, it is essential to show that not only is the measure reliable and valid but also that the construct being measured shares the same conceptual and theoretical representation across cultures (Heggestad et al., 2019). Bearing that in mind, this thesis aims to evaluate the measurement invariance of MPIP/MPIC in the UK- and Türkiye-based parents and their children (Chapter 5). Then, using a cross-cultural

research design, I assess cultural universals and cultural variations in the determinants (Chapter 6) and outcomes (Chapter 7) of mindful parenting. As per the previous discussion of Belsky's Process of Parenting Model, the Ecological Systems Model widely acknowledges culture as an essential determinant of parenting and child development. In contrast, the mindful parenting model is considered to be universally adaptive. However, there is no research to explore the role of culture in the mindful parenting process. Therefore, this thesis tests the generalisability of the mindful parenting process model across cultures.

Thesis Aims

Given the gaps in the literature raised above, this PhD project aims to explore the so-called "determinants" and "outcomes" of both parent and child perceptions of mindful parenting across the UK and Türkiye. To accomplish this overarching goal, my thesis comprised five empirical studies, each featuring specific research questions and objectives. The subsequent thesis structure, including each individual empirical study as a chapter, is overviewed below.

Chapter 2 presents the general methodology of each study within this thesis, providing comprehensive information about participants, procedures, measures, data analysis, and ethical considerations. Chapter 3 provides a systematic narrative review on correlates of mindful parenting, suggesting a Process of Mindful Parenting Model, which serves as a framework for my research thereafter. Chapter 4 develops and validates new inventories, MPIP/MPIC, to assess parents' and children's perceptions of mindful parenting in a sample of UK parents and their children. Chapter 5 translates and validates the inventories in analogous Turkish parent and child samples. MPIP/MPIC is used in the subsequent chapters to assess mindful parenting. Accordingly, Chapter 6 investigates whether child negative emotionality, parental social support and parental psychological distress determine mindful parenting across the UK and Türkiye,

focusing on the mediating role of parental psychological distress. Chapter 7 explores mediating and moderating roles of mindful parenting in the association between household chaos and child problem behaviours across the UK Türkiye. Finally, Chapter 8 discusses and synthesises the main findings of these interconnected studies.

Chapter 2

General Methods

General Methods

Participants

All empirical research in the current thesis is grounded in cross-sectional data collected in the UK and Türkiye and retest data collected in the UK. There are three main samples: a feasibility sample and two analytic samples.

Feasibility Sample

The feasibility sample was used for the initial development of the new parallel parent and child measures of mindful parenting (*see* pp 36-37). This sample consisted of 44 parents (35 birth mothers (79.5%), eight fathers (18.2%)) and one stepfather (2.3%), aged 29 to 65 years ($M = 43.09$ years, $SD = 6.50$ years) and 33 children (22 girls (66.7%), aged between 11 and 16 ($M = 13.25$, $SD = 1.50$). Most parents (75%) were married and living with their spouse, more than half (59.1%) had only one child, and 97.7% lived with the child in the study. Parents predominantly self-identified as 'white' or 'white British' (65.9%) and were well-educated (81.8% had an undergraduate degree or higher). Thirty-eight children assented to participate, but five children were excluded due to missing data. The final sample consisted of 33 children (22 girls (66.7%)) aged between 11 and 16 ($M = 13.25$, $SD = 1.50$). All but one of these children was the child referred to by the parents comprising the sample. The dyadic sample thus consisted of 32 parent-child dyads (data from the parent of one participating child was missing).

Study Samples

For the main studies, 193 UK-based and 294 Türkiye-based parents initially agreed to participate. Those who did not meet the eligibility criteria (*see* Procedure) regarding residence ($n_{UK} = 7$, $n_{TR} = 2$), child age ($n_{UK} = 5$, $n = 8$), living situation with child ($n_{UK} = 9$, $n_{TR} = 4$), and psychiatric history ($n_{UK} = 2$, $n_{TR} = 8$) as well as who dropped out ($n_{UK} = 24$, $n_{TR} = 25$) were excluded from the data. Sociodemographics of eligible mothers and fathers are given in Table 2.1.

Children of 69.2% ($n =$101, $M = 13.06$ years, $SD = 1.64$ years; 57 girls (56.4%)) of the eligible UK-based parents and 66.8% ($n =$165, $M = 13.27$ years, $SD = 1.66$ years; 89 girls (53.9%)) of the eligible Türkiye-based parents assented to participate. The subsamples of 70 UK-based parents (90% mothers) and 56 children (64.7% girls) participated in the retest four months later. Each chapter further details the characteristics of their respective subsample used in the analysis.

For the main studies, an a priori sample size calculation for the hierarchical multiple regression analysis with the number of tested predictors set to 5 suggested 92 participants in order to achieve a medium effect size ($f^2 = 0.15$, $\alpha = .05$, 80% power) (G* power 3.1.9.7, Faul et al., 2007). In addition, 100 participants per group were suggested to obtain sufficient statistical power in multiple-group analysis (Kline, 2005). Therefore, I aimed to recruit a minimum of 100 parents and their children in each culture, and I achieved this aim. However, given the very small number of fathers, I conducted studies using only mothers.

Table 2.1 Socio-demographics of initially recruited parents

	UK (*n* = 146)	TR (*n* = 247)
Parents' sociodemographics		
Parenting role *n* (%)		
Mother	134 (91.8%)	231 (93.5%)
Father	12 (8.2%)	16 (6.5%)
Age (years) (*SD*; range)	45.13 (*SD* = 6.10; 28-69)	42.49 (*SD* = 5.29; 29-58)
Number of children *M* (*SD*; range)	2.15 (*SD* = 0.85; 1-5)	1.99 (*SD* = 0.87; 1-8)
Marital status *n* (%)		
Married/cohabiting	124 (84.9%)	216 (87.4%)
Single/divorced/widowed	20 (13.7%)	31 (12.6%)
Education		
Primary or secondary education (GCSEs, A-levels or equivalent)	28 (19.2%)	81 (32.8%)
Higher education (vocational, bachelor's, master's, PhD)	115 (78.8%)	166 (67.2%)
SES *M* (*SD*; range)	6.45 (*SD* = 1.79; 1-10)	6.49 (*SD* = 1.69; 2-10)
Children's demographics		
Sex *n* (%)		
Girl	78 (53.4%)	128 (51.8%)
Boy	66 (45.2%)	119 (48.2%)
Age (years) *M* (*SD*; range)	13.09 (*SD* = 1.60; 11-16)	13.25 (*SD* = 1.66; 11-16)

Note. M = Mean, *SD* = Standard Deviation

Procedure

For the feasibility study, UK-based parents with at least one child aged 11-16 years, with no diagnoses of learning disability, (neuro)developmental or mental health disorder, and being native or fluent in English were recruited between March and April 2020. For the main studies, UK- and Türkiye-based parents with at least one child aged 11-16 years were recruited cross-sectionally between March and July 2021 through targeted online social media groups (Twitter, Instagram, and Facebook) using Qualtrics Survey Software. The invitation flyers for the feasibility study and main study are given in Appendix A and Appendix B, respectively. The surveys were created in English and Turkish languages, which were entirely analogous to each other. Eligibility criteria for parents and children were (1) living together full time, (2) having no diagnoses of learning disability, (neuro)developmental or mental-health disorder, (3) residing in the UK/Türkiye, and (4) being native or fluent in English/Turkish.

First, parents were asked to read the online information sheet, discuss it with their children, and complete the consent form. In both the feasibility and main study, parents with more than one child were asked to report on only one child between 11 and 16 years of age. Then, parents who consented provided their contact information (email address and/or mobile phone number) to receive a link to the child survey. They also generated unique reference numbers to connect their data with their children's. Finally, the child survey was forwarded to children by their parents. Children provided their assent and the unique reference number to launch the study (*see* also, Ethical Considerations below). Participants were provided with a debriefing at the end of the study (*see* also, Ethical Considerations below). The participant information sheets for parents, consent forms for parents, assent forms for children, and debriefing information forms used in the feasibility and main study are given in Appendices C-J.

In order to maximise participation, a reminder email was sent to parents who had not completed the questionnaires within two weeks. If no response was received, another reminder was sent by email first and then by the participants' contact number. Parents were invited to a follow-up study four months later, where MPIP/MPIC test-retest reliability was evaluated.

UK-based parents and their children who participated in the main study were eligible to enter a prize draw where they had the chance to win one of two Amazon vouchers worth £50 and £25, respectively, for their participation. Türkiye-based parents were eligible to enter a prize draw for the chance to win one of two D&R (a stationery store) vouchers worth ₺100 and ₺50 for their participation.

Measures

Table 2.2. provides an overview of the measures used in the feasibility and main studies (*see* also Appendices K-W). Participants completed the questionnaires in random order. Each chapter further describes the measures used in their respective analysis.

Demographic Information Form

Parents were asked to report their age (years), sex, ethnicity, marital status, the highest level of educational qualification, number of children, relationship with the target child, whether they lived with the child full-time, and the child's age (years) and sex (Appendix K and Appendix L). The Macarthur Scale of Subjective Social Status (Adler et al., 2000; Şahin & Nasır, 2019) was used to evaluate parent-perceived socioeconomic status (SES) in the main study. The scale has one item for which individuals rate their perceived SES on a ladder with ten rungs scored 1 to 10; higher scores indicate higher levels of perceived SES (Appendix M).

Table 2.2 Measures used in the empirical studies comprising the thesis

Measures	Chapters	Reporters
45-item Mindful Parenting Inventories for Parents and Children	Feasibility	Parents and children
25-item Mindful Parenting Inventories for Parents and Children	Chapter 4	Parents and children
18-item Mindful Parenting Inventories for Parents and Children	Chapters 4, 5, 6 and 7	Parents and children
Macarthur Scale of Subjective Social Status Ladder (Adler et al., 2000; Şahin & Nasır, 2019)	Chapters 4, 5, 6 and 7	Parents
Five-Facet Mindfulness Questionnaire Short form (Gu et al., 2016; Kınay, 2013)	Chapters 4 and 5	Parents
The Short Form of the Alabama Parenting Questionnaire (Çekiç et al., 2018; Elgar et al., 2007)	Chapters 4 and 5	Parents and children
Strengths and Difficulties Questionnaire (Goodman, 1997; Yalın et al., 2013)	Chapters 4 and 5 and 7	Parents and children
Depression Anxiety and Stress Scale 21-item version (Lovibond & Lovibond, 1995; Sarıçam, 2018)	Chapter 6	Parents
"Emotionality" Subscale of the Emotionality Activity Sociability Temperament Survey (Buss & Plomin, 1984; Eyüpoğlu, 2006)	Chapter 6	Parents
Multidimensional Scale of Perceived Social Support (Eker et al., 2001; Zimet et al., 1988)	Chapter 6	Parents
Confusion, Hubbub and Order Scale (Aytac & Pike, 2018; Matheny et al., 1995)	Chapter 7	Parents

45-item Mindful Parenting Inventories for Parents and Children (Initial Item Generation)

The "deductive" method was used to develop the preliminary version of MPIP/MPIC. That is, I created an initial item pool based on the theoretical models of mindful parenting and also closely related concepts and existing measures as suggested by Clark and Watson (1995). Accordingly, items representing interpersonal aspects of mindful parenting and deemed appropriate for child reports were selected for an initial item pool from the MIPQ (McCaffrey et al., 2017) and IM-P (Duncan, 2007; de Bruin et al., 2014). Additional items for the pool were those adapted to the parenting context from the Kentucky Inventory of Mindfulness Skills (KIMS; Baer et al., 2004), Interpersonal Mindfulness Scale (IMS; Pratscher et al., 2019), Self-Compassion Scale (SCS; Neff, 2003), and Anger Rumination Scale (ARS; Sukhodolsky et al., 2001). And finally, more items were generated for the pool based on the theoretical definitions and suggested mindful parenting dimensions in the literature (e.g., Duncan et al., 2009; Kabat-Zinn & Kabat-Zinn, 1997).

Then, my supervisor and an independent mindfulness researcher acted as experts to provide face validity and also assessed the developmental appropriateness and clarity of the items. Forty-five items (29 of positive and 16 of negative valence) for each parent and child were thus included in the initial instruments on five theoretical dimensions: Being in the Moment with Child, Self-Regulation in Parenting, Awareness of Child, Non-judgemental Acceptance of Child and Compassion toward Child. Since I aimed to develop a short instrument with approximately 20 items so as to be suitable for child reports, 45-item initial instruments were considered suitable for piloting (Lounsbury et al., 2006, p. 133).

In the feasibility study, UK-based parents and their children completed the English version of the initial 45-item MPIP/MPIC described above (Appendix N). The

frequency was rated for each item by parents and children on a five-point Likert scale (never true = 1, always true = 5). Participants also provided quantitative and qualitative feedback on the MPIP and MPIC. After responding to an item, parents and children immediately evaluated how easy it was to understand on a five-point scale (1 = extremely easy, 5 = extremely difficult) and were encouraged to provide open-ended feedback for each item.

Following the feasibility data collection, my supervisor and I evaluated the 45 items of MPIP/MPIC based on variances, along with quantitative and qualitative feedback from participants and professional judgments. I dropped 20 items that reflected general negative/harsh parenting rather than specifically negative mindful parenting, required high-level theory-of-mind abilities, or demonstrated no variability/poor structural agreement in both parent and child feasibility samples. In addition, some items were removed or revised due to a lack of clarity reported by the respondents. The remaining 25 items comprised the five subscales measuring five dimensions of mindful parenting. Factors were named "Self-Regulation in Parenting" (SRP: items related to parental emotion-regulation skills), "Non-judgemental Acceptance of Child" (NJAP: items related to accepting feelings, thoughts and behaviours of the child without judging them), "Compassion toward Child'' (CC: items reflecting being patient, kind and affectionate towards child needs), "Being in the Moment with Child" (BMC: items related to being *here and now* during interaction with child), and finally "Awareness of Child" (AC: items related to the ability to pay attention to and detect child's emotions, thoughts and behaviours).

25-item Mindful Parenting Inventories for Parents and Children

For the final decisions about the structure of the inventories, UK-based parents and children comprising the UK validation samples (Chapter 4) completed the English version of the initial 25-item MPIP/MPIC with five dimensions: Self-Regulation in

Parenting, Non-judgemental Acceptance of Child, Compassion toward Child, Being in the Moment with Child, and Awareness of Child (Appendix O). The process through the feasibility study to obtain the 25-item MPIP/MPIC is described above.

18-item Mindful Parenting Inventories for Parents and Children

Based on the UK validation study (*see* Chapter 4), I decided on the final structure of MPIP/MPIC, which was used in subsequent studies to assess mindful parenting. The final MPIP/MPIC each consists of 18 items with four dimensions: Self-Regulation in Parenting (6 items), Acceptance and Compassion towards Child (5 items), Being in the Moment with Child (4 items), and Awareness of Child (3 items) (Appendix P). Parents and children rated their perceptions of mindful parenting on a 5-point scale ranging from "never true" (1) to "always true" (5). Eight items of MPIP/MPIC are reverse scored so that higher scores indicate higher mindful parenting.

An independent team of five other native Turkish speakers worked on the translation of MPIP/MPIC for families living in Türkiye. Two clinical psychologists translated the instruments into Turkish independently. Through discussion, a third psychologist and I decided on items to be included in the Turkish versions of the inventories. Then, the Turkish forms were sent to two back-translators, one of whom was a Turkish clinical psychologist knowledgeable about mindfulness, and the other was bilingual and bicultural but not knowledgeable about the subject of the scale (Van Widenfelt et al., 2005). None of the back translators had seen the original English items before the translation. The third psychologist and I decided on the final version of the Turkish form of MPIP/MPIC, which was sent to two Turkish parents and two children before data collection to assess the comprehensibility of the items.

Traditional parenting

In Chapter 4 and Chapter 5, the nine-item short version of the Alabama Parenting Questionnaire (APQ; Çekiç et al., 2018; Elgar et al., 2007) was used to assess parents' and children's perceptions of parenting practices in three dimensions, each including three items rated on a 5-point scale from 1 "never" to 5 "always" (Appendix Q). Example items include, for Positive Parenting: "You let your child know when he/she is doing a good job with something/Your mother/father tells you that you are doing a good job."; for Inconsistent Discipline: "You threaten to punish your child and then do not actually punish him(her)/Your mother/father threatens to punish you and then does not do it"; and for Poor Supervision: "Your child fails to leave a note or to let you know where he(she) is going/You fail to leave a note or tell your mother/father where you are going."

Maternal dispositional mindfulness

The total score of the 15-item Five Facet Mindfulness Questionnaire (FFMQ; Gu et al., 2016; Kınay, 2013) was used to assess parents' dispositional mindfulness in Chapter 4 and Chapter 5 (Appendix R). Parents reported their mindfulness on a 5-point scale from "Never or very rarely true" (1) to "Very often or always true" (5). Seven negative items of the FFMQ were reverse-scored, such that higher scores indicate higher levels of dispositional mindfulness. Example items include, "Even when I'm feeling terribly upset, I can find a way to put it into words" and "I find myself doing things without paying attention.

Maternal psychological distress

The 21-item version of the Depression Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995; Sarıçam, 2018) was used to assess parents' depression, anxiety, and stress, each with seven items (Appendix S). Parents reported their

psychological distress on a four-point scale ranging from "Did not apply to me at all" (0) to "Applied to me very much or most of the time" (3). Example items include, "I couldn't seem to experience any positive feeling at all", "I was aware of dryness of my mouth", and "I found it hard to wind down." Each subscale was used separately in Chapter 4, while its total score was used in Chapter 6.

Child behaviours

Parents' and children's reports on child behaviours using the age-appropriate versions of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997; Yalın et al., 2013) (Appendix T). The SDQ's internalising behaviours (emotional symptoms + peer relationship problems) and externalising behaviours (conduct problems + hyperactivity) subscales suggested for community samples (Goodman, 2010) include ten items, and I also included the prosocial behaviours subscale (five items); each SDQ item is scored on a 3-point scale from 0 "Not True" to 2 "Certainly True". Example items include, for internalising behaviours: "Often complains of headaches, stomach-aches or sickness/I get a lot of headaches, stomach-aches or sickness"; for externalising behaviours, "Often has temper tantrums or hot tempers/I get very angry and often lose my temper."; and for prosocial behaviours "Considerate of other people's feelings/I am considerate of other people's feelings". Parent- and child-reported internalising, externalising, and prosocial behaviours subscales were used in Chapter 4 and Chapter 5, while parent-reported internalising and externalising behaviours subscales were used in Chapter 7.

Child Negative Emotionality

The "Emotionality" Subscale of the Emotionality Activity Sociability Temperament Survey (EASTS; Buss & Plomin, 1984; Eyüpoğlu, 2006) was used to measure parents' perceptions of their child's negative emotionality (Chapter 6)

(Appendix U). A total of six items (e.g., My child often fusses and cries) were rated by parents on a five-point scale ranging from "Not characteristic/typical" (1) to "Very characteristic/typical" (5) (e.g., My child reacts intensely when upset).

Social Support

The total score of the Multidimensional Scale of Perceived Social Support (MSPSS; Eker et al., 2001; Zimet et al., 1988) was used to evaluate parents' perceptions of social support (Chapter 6) (Appendix V). Parents reported perceived social support from parents, family, friends, and specific others on a seven-point scale from "Very Strongly Disagree" (1) to "Very Strongly Agree" (7). Sample items include, "My friends really try to help me", "I can talk about my problems with my family", and "There is a special person in my life who cares about my feelings."

Household Chaos

Parents rated their perceptions of household chaos on the six-item short form of the Confusion, Hubbub, and Order Scale (CHAOS; Aytac & Pike, 2018; Matheny et al., 1995) on a five-point Likert scale from 1 "definitely untrue" to 5 "definitely true" (Chapter 7) (Appendix W). Sample items include "It's a real zoo in our home" and "We are usually able to stay on top of things."

Data Preparation and Analyses

In the feasibility study, analyses were conducted using IBM SPSS version 25. Little's MCAR (Little, 1988) test was conducted to investigate whether the values missing were random in the final samples. The results showed that the missing values in the final parent ($\chi^2 = 42.44$; $df = 44$; $p = .539$) and child sample ($\chi^2 = 28.12$; $df = 44$; $p = .970$) were at random. Missing values were replaced with series mean. In the main studies, statistical analyses were performed using SPSS 29.0 and AMOS 29.0. There were no items with 5% or more missing data in any sample. Missing data were

completely at random (Little, 1988) in all studies, as given in their respective chapters. Thus, the expectation maximisation method was used to handle missing data (Tabachnick & Fidell, 2007).

I investigated relationships between study variables using Pearson's correlations. A series of hierarchical regression analyses were used to test whether MPIP/MPIC predicted child behaviours (SDQ) over and above parental dispositional mindfulness (FFMQ), traditional parenting (APQ) and sociodemographic covariates. Independent samples t-test was used to assess mean level differences in study variables across cultures (UK and Türkiye). In addition, Paired samples t-test was used to assess mean level differences in parent and child reports of mindful parenting within cultures.

I conducted exploratory Principal Component Analyses (PCA) with Promax rotation (Chapter 4) and Confirmatory Factor Analyses (CFA) (Chapter 4 and Chapter 5) to examine the factor structure of MPIP/MPIC. In Chapter 4 and Chapter 5, Multiple-group CFA (with Emulisrel correction; Byrne, 2016) was conducted to establish the measurement invariance of the new inventories across reporters (parents and their children) in three hierarchical steps: (1) configural invariance, (2) metric invariance, and (3) scalar invariance (Putnick & Bornstein, 2016). For CFA and multiple-group models, comparative fit index (CFI $\geq$ 0.90), root-mean-square error of approximation (RMSEA $\leq$ 0.08), and standardised root-mean-square residual (SRMR $\leq$ 0.09) were used as the criteria for model fit (Hu & Bentler, 1999).

Accordingly, I first compared the metric model to the configural model and then the scalar model to the metric model. As recommended for invariance testing in small samples, CFI and RMSEA changes (Chen, 2007), along with chi-square changes ($\Delta\chi^2$) between the models, were used to assess measurement invariance (Putnick & Bornstein, 2016). Accordingly, deterioration of < -0.005, supplemented by a deterioration of > 0.010 in RMSEA (Chen, 2007), or significant χ^2 deterioration ($p < .05$) indicated

variance between groups. In practice, one in third studies (Putnick & Bornstein, 2016) or more (Schmitt & Kuljanin, 2008) have reported that full measurement invariance was not supported at all steps. In such cases, I established partial measurement invariance where some, albeit not all, parameters are invariant between groups (Byrne et al., 1989; Putnick & Bornstein, 2016) and compared means at latent level rather than observed level (i.e., using *t*-test) (Steinmetz, 2013). To calculate latent mean differences, I freely estimated latent means for parents but fixed them to zero for children (Byrne, 2016).

Multiple-group path analysis (Chapter 6) and multiple-group SEM analysis (Chapter 7) were used to test the hypothesised process of the mindful parenting models and the invariance of the model across cultures. The mediation hypotheses were tested by conducting 5000 bias-corrected bootstrapped samples with 95% confidence intervals (Chapter 6 and Chapter 7). Finally, the simple slope method was used to test the moderation hypothesis (Chapter 7).

Ethical Considerations

The feasibility study was approved by Goldsmiths, University of London, Department of Psychology Ethics Committee (the previous institution of the PhD student and her supervisor). The protocol number is PS200320PAS. The UCL Institute of Education, Postgraduate Research Ethics Committee, granted ethical approval for the full study (UCL Data Protection Registration Number: Z6364106/2021/01/43 social research). Please *see* Appendix X and Appendix Y for the Ethical approvals.

Participation was entirely voluntary. An electronic information sheet, including the study aims and procedure, confidentiality and limits to confidentiality, benefits and risks, as well as their withdrawal rights, was available to participants before consent was gained and the questionnaire was launched. During the study, participants were also able to skip questions they did not want to answer.

The opt-in sampling method was applied to ensure that children had their parents' permission to participate in the research. Accordingly, first, parents took part in the study and provided online consent for their own as well as for their child's participation. Parents who consented were asked to provide their contact information (email address and/or mobile phone number) to receive a link to the child survey and a follow-up questionnaire four months later. Then, those parents were sent the questionnaire link to their children and asked to forward the link to their children. Children were informed clearly that their participation was entirely voluntary and about their right to withdraw from the study. Children's assent was obtained before taking part. Before launching the survey, children entered the unique reference numbers created by their parents. While the data was anonymised, the unique reference numbers were replaced by new ID numbers (e.g., parent 101a and child 101b; parent 102a and child 102b) and stored as such. Therefore, the unique reference numbers cannot track the personally identifiable data.

Parents and children were kindly asked to complete the questionnaires separately. This was important both to protect participants' privacy and also to increase the validity of the answers. At the end of the questionnaires, participants were given debriefing information, including contact details of researchers and available mental health support organisations.

I was aware that this PhD research involves children who are potentially vulnerable participants. Thus, I had a DBS certificate from the UK and a Criminal Record Check from my home country (Türkiye). The research did not propose asking children to provide information about their personal or family background, religious beliefs, personal likes and dislikes, or any other aspects of their life that may be considered sensitive. Furthermore, the questionnaires were sent to the child participants online via their parents, and they were able to participate in the study in their home

environment at any time they wished. Thus, the study did not involve any researcher-children contact.

Chapter 3

The Process of Mindful Parenting Model: A Systematic Narrative Review

Introduction

As stated in the introductory chapter, scholars have increasingly considered the specific importance of so-termed 'mindful parenting' for child adjustment. For example, the Mindful Parenting Model (Duncan et al., 2009) suggests increased positive parenting practices, parent-child affection, parent and child well-being, and decreased child problems as outcomes of mindful parenting (*see* Chapter 1). However, determinants of mindful parenting have been relatively neglected, although the sources of variation in traditional parenting have been extensively considered (Belsky, 1984; Taraban & Shaw, 2018). Furthermore, despite a remarkable increase in empirical studies examining the correlates of mindful parenting over the past decade, these studies yet to be systematically synthesised. Here, using well-established models of determinants of traditional parenting as a foundation, I aim to provide a systematic review of studies in mindful parenting to enable a better understanding of the mindful parenting process, in turn informing mindful parenting research and interventions.

Belsky's (1984) Process of Parenting Model suggests that characteristics of the parent (e.g., personality, depression), child (e.g., temperament), and family social environment (e.g., marital and social relationships) shape parenting behaviours. Since the publication of this model, parenting stress (stress related specifically to the parental role), itself multidetermined by characteristics of the parent, child, and family social environment, has additionally been posited as a mechanism through which these determinants relate to parenting (Abidin, 1992). Furthermore, the subsequent empirical literature has supported the mediating effect of parenting stress between parenting and parent (e.g., Le et al., 2017), child (e.g., Nam & Chun, 2014), and social characteristics (e.g., Bonds et al., 2002).

More recently, excluding parenting stress from their model, Taraban and Shaw (2018) reviewed empirical support for and expanded Belsky's early model. Specifically,

this revised model links parents' and children's cognitive-affective processes, gender, genetic factors, family structure and culture to parenting behaviours and emphasises the importance of contextual factors (e.g., parent and child gender, SES and culture), interacting with each domain to influence parenting behaviours. Empirical support for this updated model argues cognitive-affective processes of parents (i.e., dysfunctional child attributions; Sturge-Apple et al., 2020), parent and child emotion regulation (Liu et al., 2021b; Zimmer-Gembeck et al., 2022), gender (Yaffe, 2020) and culture (Lansford, 2022) to be related to traditional parenting. In addition, parent gender-differentiated patterns in the parenting process have been suggested (Sturge-Apple et al., 2020), and cultural factors have been argued to directly shape parenting behaviours and also moderate the relationship between parenting and child outcomes (for review, *see* Lansford, 2022).

However, despite burgeoning research, little is known about mindful parenting literature in this context. This is somewhat surprising but perhaps driven by an unwritten assumption of similarity with traditional parenting models. Yet this assumption may be unfounded since mindful parenting is only moderately associated with traditional parenting constructs (*see* also General Introduction), such as warmth (Kim et al., 2019), autonomy support (Geurtzen et al., 2015), harshness (Duncan et al., 2015). Addressing this research gap, I review existing literature to consider factors associated with mindful parenting in five major categories: parent characteristics, child characteristics, family social environment, SES, and parenting stress. Using Taraban and Shaw's (2018) extension to Belsky's (1984) traditional parenting model as the framework, as well as considering the potential role of parenting stress (Abidin, 1992), I conceptualise a Process of Mindful Parenting Model and discuss the influence of contextual factors.

Method

Registration and Searches

This review was registered in PROSPERO on 20 May 2020 [CRD42020185473] and was conducted based on established guidelines (Moher et al., 2009; Siddaway et al., 2019). Key search terms included [mindful* AND (parent* OR father* OR mother* OR rearing OR caregiv*)], and searches were conducted in PsycINFO, Eric, MEDLINE, PubMed, and Web of Science. I reviewed publications to December 2021.

Study Selection

I included studies using two measures developed to assess the general tendency (trait) to be mindful in parenting, the Interpersonal Mindfulness in Parenting Scale (IM-P; Duncan, 2007; de Bruin et al., 2014) and the Mindful Parenting in Infancy Scale (MPIS; Gartstein, 2021). Seven studies using two other measures – Mindfulness in Parenting Questionnaire (MIPQ; McCaffrey et al., 2017) and Bangor Mindful Parenting Scale (BMPS; Jones et al., 2014) – developed to measure state-based mindful parenting at a specific period in time (i.e., over the past two weeks) and while parenting child with an autism spectrum disorder respectively were omitted. Furthermore, one study using child reports of mindful parenting – whilst of pertinence and under-explored in the field -- was also excluded since the measurement approach – "changing the items from the parent's perspective to the child's perspective" (Liu et al., 2019, p. 3), was not validated.

Duncan et al. (2009) have emphasised that mindful parenting during the adolescent period may be particularly important. However, during the initial review, I observed that existing studies were often scattered and heterogeneous regarding targeted age groups, and there are yet only a few adolescence-specific studies. Thus, I included studies with a wide child age range in which the mean age of children was up to 16 years. In addition, I focused on typically developing children and their parents due to

the necessity of understanding the role of mindful parenting in non-clinical contexts (Kil & Antonacci, 2020).

As such, studies that a) assessed mindful parenting using IM-P or MPIS, b) reported associations of mindful parenting with at least one of parent characteristics, child characteristics, family social environment, SES and/or parenting stress, c) involved samples referring to typically developing children with a mean age up to age 16 years, d) were published in an academic journal in English were included. Book chapters, dissertations, unpublished work, and non-empirical, non-academic, and non-English articles were not included. Studies with clinical or clinically-relevant samples or participants attending a parenting programme or other intervention were also excluded to minimise confounding factors and synthesise the correlates of non-intervention-based mindful parenting.

As summarised in the PRISMA diagram (*see* Fig. 3.1), I assessed 124 full-text articles for eligibility. Eight articles did not report children's mean age, three of which provided this information on request and were included since they met inclusion criteria. Ninety-four articles were excluded because they did not meet other inclusion criteria or met the exclusion criteria. In total, 30 eligible articles published between 2014 and 2021 were included in the current review. Different studies with overlapping samples were treated as separate samples because the samples were not completely identical or reported on different variables (*see* Table 3.1). One study (Caçador & Moreira, 2021) was excluded because it examined identical relationships of mindful parenting in an identical sample as Caiado et al. (2020).

Fig. 3.1 Flow chart of the study selection process for the systematic narrative review

Records identified through database searching (*n* = 5556)
-WEB OF SCIENCE (*n* = 1826)
-PUBMED (*n* = 990)
-PSYCINFO (*n* = 1600)
-MEDLINE (*n* = 971)
-ERIC (*n* = 169)

Additional articles identified through other sources (n = 0)

Records after duplicates removed (*n* = 2744)

Records whose abstracts were screened (*n* = 2744)

Records excluded (*n* = 2627)

Full-text articles assessed for eligibility (*n* = 124)

Full-text articles excluded, with reasons (*n* = 94) Reasons: Intervention/post-intervention (*n* = 6), compared community sample to treatment seeking groups (*n* = 1), qualitative study (*n* = 1), no empirical data/review (*n* = 5), clinic/clinically-relevant samples (*n* = 13), no reported associations of mindful parenting with parent, child or family social environment characteristics (*n* = 4), only physiological outcomes assessed (*n* = 1), mean child age was above 16 (*n* = 1), no mean child age provided (*n* = 5), trait mindfulness/parent mind-mindedness/meta-parenting/psychological flexibility/mindful facilitation were assessed, but mindful parenting (*n* = 33), used only IM-P dimensions (*n* = 11), used MIPQ (*n* = 8), used BMPQ (*n* = 1), used nonvalidated child-reported IM-P (*n* = 1), overlapping sample (*n* = 1), traditional parenting (*n* = 2)

Articles included in narrative synthesis (*n* = 30)

Identification

Screening

Eligibility

Included

Data Extraction and Synthesis

Extracted data included: authors' names, sample characteristics (i.e., sample size, parent and child age and sex (*see* Table 3.1) as well as ethnicity, family structure, SES; *see* Table 3.2), and study characteristics (i.e., sampling, research design, data collection methods, mindful parenting measures (*see* Table 3.3)). During initial synthesis, I observed that IM-P factor structure varies substantially across cultures (*see* Table 3.4); thus, I report findings from only the total IM-P score.

Correlates of mindful parenting were narratively synthesised based on predetermined theoretical frameworks (i.e., Abdin, 1982; Taraban & Shaw, 2018). I use the terms 'determinant' and 'outcome' for heuristic purposes to generate reflection on the process of mindful parenting in a similar vein to Belsky's work (1984, p. 84). To illustrate my conceptualisation of the synthesis, I present a theoretical model of the mindful parenting process diagrammatically (*see* Fig. 3.2). However, note that these are correlational, not causal, pathways. Effect sizes are presented where available; these were measured as correlation coefficients (*r*) or standardised regression coefficients (*β*). Statistical results originally reported as mean comparisons (*t* and *F*) were converted to correlation coefficients where possible (Borenstein et al., 2009; Thalheimer & Cook, 2002). I used Cohen's (1988) guidelines to label the magnitude of effect sizes (i.e., small *r* ~.10, medium *r* ~.30, and large *r* ~.50+).

Table 3.1 Demographic information of parents and children

Authors	Sample	Parent gender	Parent mean age (SD); range	Child sex	Child mean age (SD); range
An et al. (2021)	786 parent-child dyads	NI	NI	49.7% G	9.98 (0.89); 9-13
Caiado et al. (2020)[a]	295 mothers	100% F	32.07 (4.84); 19-47	47.1% G	6.98 months (3.45); 0-12
Corthorn & Milicic (2016)	62 mothers	100% F	36 (5.1); NI	NI	NI (NI); 2-5
de Bruin et al. (2014)	866 mothers	100% F	45 (3.8); NI	47% G	13.3 (0.60); 12-15
Evans et al. (2020)	105 parents	92.4% F	43.14 (5.88)	41% G	11.98 (0.61); NI
Fernandes et al. (2021)	125 parents	100% F	33.69 (4.68); 23-46	52.0% G	5 months (3.23); 0-12
Gartstein (2021[1])	37 parents	100% F	29.8 (3.59); 21-35.5	45.9% G	8.12 months (2.76); 3-12
Gartstein (2021[2])	79 parents	100% F	28.72 (4.64); 21-42	43% G	8.44 months (1.51); 6-12
Gouveia et al. (2016)[b]	333 parents	73.9% F	42.31 (5.66); 27-63	55% G	11.98 (3.02); 8-18
Han et al. (2021)[c]	2237 parents	77% F	38.46 (4.43); NI	48.1% G	9.40 (1.78); 6-12
Henrichs et al. (2021)	118 parents	100% F	32.0 (3.8); NI	52.5% G	48.1 months (0.9); (NI)
Kim et al. (2019[1])	554 parents	92.2% F	42.65 (20.32); 25-56	NI	10.56 (5.17); 1-18
Kim et al. (2019[2])	283 parents	87.6% F	37.01 (4.46); 27-58	NI	4.03 years (0.82); 3-5
Lo et al. (2018)	837 parents	82.3% F	89% aged 31-50	NI	7.59 years (3.85); 2-19
Medeiros et al. (2016)[b]	243 family triads	100% F and M	Mothers: 41.95 (5.57); 28-59 Fathers: 44.31 (6.15); 28-63	57.2% G	12.27 years (3.14); 8-19
Moreira & Canavarro (2015)[b]	439 parents	67% F	42.36 (6.19); 23-63	54.9% G	11.90 years (3.14); 5-19
Moreira & Canavarro (2017[1])	300 parents	100% F	36.68 (5.47); 20-54	49.3% G	5.85 years (4.34); 1-18
Moreira & Canavarro (2017[2])[d]	142 mother-father dyads and 95 mothers	71.4% F	Mothers: 41.38 (5.80); 28-59 Fathers: 43.17 (6.01); 28-60	54.9% G	11.76 years (2.85); 8-18
Moreira & Cristina Canavarro (2020)[d]	375 mother-child	100% F	43.16 (5.22); 30-61	59.5% G	14.19 years (1.67); 12-19
Moreira et al. (2016)[b]	290 mothers	100% F	41.66 (5.42); 27-57	54.5% G	11.90 years (3.10); 8-19
Moreira et al. (2018)[d]	563 parent-child	95.6% F	43.38 (5.36); 30-61	61.5% G	14.26 years (1.66); 12-20
Nobre-Trindade et al. (2021)[a]	295 mothers	100% F	32.07 (4.84); 19-47	47.1% G	6.98 months (3.45); 0-12
Pan et al. (2019[1])	183 parents	59.6% F	36.25 (1.71); 25-54	NI	10.17 years (2.54); 7-18

Table 3.1 *(continued)*

Authors	Sample	Parent gender	Parent mean age (SD); range	Child sex	Child mean age (SD); range
Pan et al. (2019[2])	294 parents	48.3% F	38.97 (5.92); 29-59	NI	12.30 years (4.75); 4-25
Parent et al. (2021)	564 parents	60% F	36.35 (8.13); NI	45.6% G	9.57 years (4.45); 3-17
Parent et al. (2016a)	485 parents	59.2% F	36.3 (7.8); NI	44.1% G	9.53 years (NI); 3-17
Parent et al. (2016b)	615 parents	55% F	35.85 (12.56); NI	45% G	9.45 years (4.19); 3-17
Park et al. (2020)	117 parent-child	100% F	NI	52% G	12.13 years (0.67); 10-14
Ren et al. (2020)[c]	167 parents	82% F	38.04 (4.78); 27-52	20% G	8.84 years (1.88); 6-12
Turpyn & Chaplin (2016)	157 parents	99% F	NI	49% G	12.7 years (0.7); 12-14
Wang et al. (2018a)	168 mother-child	100% F	42.45(3.12); 36-50	56% G	12.89 years (0.56); 11-14
Wong et al. (2019)	63 parent-child	100% F	NI	50.8% G	5.11 years (0.88); 4-6
Yang et al. (2021)	496 parent-child dyads	100% F	39.95 (3.39); 31-39	47.8% G	12.38 years (0.59); 11-15
Zhang et al. (2019)	472 parents	74.4% F	NI	45.4% G	5.17 years (0.78); 3-7

Note: SD = Standard deviation; NI = No information; F = female; M = male; G = girl. [a]Caiado et al. (2020) and Nobre-Trindade (2021); [b]Gouveia et al. (2016), Medeiros et al. (2016), Moreira & Canavarro (2015) and Moreira et al. (2016); [c]Han et al. (2021) and Ren et al. (2020); [d]Moreira & Canavarro (2017c), Moreira & Cristina Canavarro (2020) and Moreira et al. (2018); [e]Parent et al., (2016a), Parent et al., (2016b) and Parent et al., (2021) used overlapping samples

Table 3.2 Further sociodemographic information of families

Authors	Country; ethnicity(-ies)	Family structure	Socioeconomic status (SES)
An et al. (2021)	Ho Chi Minh, Vietnam	NI	NI
Caiado et al. (2020)	42.7% central Portugal), 24.7% the Lisbon metropolitan area; 20.3% northern Portugal	94.6% married or cohabitating	73.6% had a monthly household income of less than 2000€; 73.2% lived in urban areas; 63.7% completed higher education; 80.3% were employed
Corthorn & Milicic (2016)	Chile	Parents had two children; 75.8% married or cohabitating	61.3% had a university degree; 27.4% below $1160, 16.1% between $1160-$1600, 41.9% between $1600-$4900, 14.5% higher than $4900 per month
de Bruin et al. (2014)	Netherlands; 96% Dutch	99.1 % was the biological mother	27.6% completed general secondary education, 24.7% intermediate vocational education, 32.1% higher vocational education, 3.3% different education or missing
Evans et al. (2020)	Melbourne, Australia	14.3% single parents	Socio-Economic Indexes [population mean = 1000 (100)] = 1019.54 (47.22); 16.2% did not complete high school, 30.5% had a high-school degree, 52.4% had a university degree
Fernandes et al. (2021)	Portugal	92.8% cohabitating	70.4% had a monthly household income of less than 2000€, 29.6% had 2000€ or above; 24% completed basic/secondary and 76% higher education; 71.2% living urban; 54.8% on maternity leave
Gartstein (2021[1])	USA, 94.3% white	100% married or cohabitating	Mean education year was 16.97 (SD = 2.83); 78% had an annual income of above $30,000
Gartstein (2021[2])	USA, 90% white	90.9% married	Mean education year was 16.01 (SD = 2.04); 81.1% had an annual income of above $30,000
Gouveia et al. (2016)	Portugal	Parents had 1.96 (0.87) children; 86.8% married or cohabitating	69.1% completed basic/secondary, and 30.9% completed graduate or post-graduate studies; 63.4% living in rural

Note: NI = No information

Table 3.2 *(continued)*

Authors	Country; ethnicity(-ies)	Family structure	Socioeconomic status (SES)
Han et al. (2021)	China; 93.8% Han	NI	56.4% had a college degree or above; 70.3% at or above the average annual income for urban Chinese families (around $17,316); 67.2% full-time employed
Henrichs et al. (2021)	Netherlands; 95.8% Dutch	61% married, 39% living together	70.3% with higher vocational training or a bachelor's degree, 29.7% with lower vocational training or less; 78.0% had a monthly income of above €3600
Kim et al. (2019[1])	South Korea	Parents had 1.54 (0.59); 1-3 children	90.2% bachelor's degree or above; 55% employed
Kim et al. (2019[2])	South Korea	NI	72.8% bachelor's degree or above
Lo et al. (2018)	China	90.6% married	1.8% no formal education, 19.7% primary school , 52.1% secondary school, 26.4% tertiary or above; 53% working full-time, 8.2% working part-time
Medeiros et al. (2016)	North and central Portugal	100% married or cohabiting couples living with their children	66.30% of mothers and 77.40% of fathers completed basic/secondary, 33.70% of mothers and 22.60% of fathers completed higher education; 79.40% of mothers and 89.30% of fathers were active (employed, student), 20.20% of mothers and 9.10% fathers were nonactive (unemployed, retired)
Moreira & Canavarro (2015)	North and Central Portugal	Parents had 1.90 (0.80); 1-7 children; 89.3% married or cohabiting	70.4% completed basic/secondary, and 29.6% completed graduate or postgraduate studies; 82% employed
Moreira & Canavarro (2017[1])	Portugal	Parents had 1.54 (0.67); 1-5 children; 85% married or cohabiting	84.3% had graduate or postgraduate degrees; 86.3% employed; 78.3% living in urban

Note: NI = No information

Table 3.2 *(continued)*

Authors	Country; ethnicity(-ies)	Family structure	Socioeconomic status (SES)
Moreira & Canavarro (2017[2])	Central Portugal	Mothers had 1.88 (0.80); 1-6, and fathers had 1.84 (0.67); 1-5 children; 85.2% of mothers and 94.3% of fathers married or cohabiting	69.2% of mothers and 79.9% of fathers completed basic/secondary education, 30.8% of mothers and 20.6% of fathers completed graduate/postgraduate studies; 80.9% of mothers and 89.4% of fathers employed
Moreira & Cristina Canavarro (2020)	Portugal	70.9% had more than one child; 86.7% married or cohabiting	78.1% completed basic/secondary education, 21.9% had a university degree; 78.7% employed; 82.4% living rural
Moreira et al. (2016)	Northern and Central Portugal	Parents had 1.97 (0.91) children; 1-8; 86.6% married or cohabiting	68.3% completed basic/secondary education, 31.7% completed higher education
Moreira et al. (2018)	Portugal	84.5% married or cohabiting	77.1% completed basic/secondary education; 56.8% had a monthly income of 800€-2000€, 29% less than 800€, 10.3% had 2000€-3500€, 1.4% above 3500€, 2.5% missing; 75.1% living rural
Nobre-Trindade et al. (2021)	Central Portugal	94.6% lived with a partner	63.7% completed higher education; 71.9% were employed; 73.6% had a monthly household income of at or below 2000€; 73.2% living in urban areas
Pan et al. (2019[1])	China	88.5% had only one child	81.9% had a bachelor's degree or above
Pan et al. (2019[2])	South China	69.7% had only one child, 23.5% had two children	64.6% had a bachelor's degree or above; 32.3% had a middle school or junior college degree

Note: NI = No information

Table 3.2 *(continued)*

Authors	Country; ethnicity(-ies)	Family structure	Socioeconomic status (SES)
Parent et al. (2021)	USA; 79.0% White, 9.8% Black, 5.7% Latino/a, 4.5% Asian, 1.0%, Indian, Alaska Native, or another Pacific Islander	82.9% married or cohabitating; 38.5% had only one child	0.4% had no high school degree, 12.8% completed high school/general education, 30.5% attended some college, 40.6% had a college degree, 15.9% attended some graduate school; 61.7% full-time, 19.5% part-time working, 18.8% unemployed; 21.7% had an annual income of below $30,000, 28.7% $30,000-$49,999, 19.5% $50,000-$69,999, 16.8% $70,000-$99,999 and 13.3% $100,000 or more
Parent et al. (2016a)	USA; 79.5% White, 10% Black, 5.3% Latino, 3.9% Asian, 1.2% American Indian, Alaska Native, or another Pacific Islander	94% married or cohabitating	.4% had no high school degree, 12.7% completed high school/general education, 29.7% attended some college, 41.6% had a college degree, 15.6% attended some graduate school; 19.5% had an annual income of $30,000 and below, 16% had $30,000-$40,000, 12.5% $40,000-$50,000, 10% $50,000-$60,000, 27.7% $60,000-$100,000, 14.3% $100,000 and above
Parent et al. (2016b)	USA; 77.2% White, 13.2% Black, 4.4% Latino, 4.1% Asian, 1.1% other	Parents had 1.78 (.90) children; 80% married or cohabitating	1% had no high school degree, 14.1% had high school/general education, 32.5% attended some college, 38.1% had a college degree, and 14.3% attended some graduate school; 59.7% full-time and 21.3% part-time working; 25.4% had an annual income of below $30,000, 24.7% $30,000-$49,999, 21.6% $50,000-$69,999, 15.3% $70,000-$99,999; 9.5% $100,000 or more; 26.5% living urban, 52.9% suburban, 20.6% rural
Park et al. (2020)	USA, Pennsylvania; 69% white, 21% black/multiracial, 5% Asian, 4% Latino, 1% American Indian	74% two-parent family	6% not completed high school, 22% high school or general education, 32% attended some college/technical training, 40% had a college degree; median of annual income was $55,732; 57% full-time, 25% part-time working

Note: NI = No information

Table 3.2 *(continued)*

Authors	Country; ethnicity(-ies)	Family structure	Socioeconomic status (SES)
Ren et al. (2020)	China	Biological parents	45.5% high school or lower, 41.9% college, 12.6% postgraduate or higher
Turpyn & Chaplin (2016)	USA; 64.1% European American; 14.4% African American; 9.8% Latin American; 1.3% Asian American; 10.4% mixed/other	NI	Annual income of 58.6% above $100,000, 12.7% between $75,000-100,000, 4.5% between $60,000-74,999, 1.9% between 45,000-59,999; 3.2% between 35,000-44,999, 4.5% between 25,000-34,999, 3.2% between 15,000-24,999, 7.6% below 15,000; 3.8% missing
Wang et al. (2018a)	South China	NI	26.7% had middle school or below, 68.7% undergraduate and 14.1% post-graduate degree
Wong et al. (2019)	Netherlands	90.5% had more than one child	14.3% general vocational training; 52.4% higher vocational training; 25.4% university degree
Yang et al. (2021)	China, Southern	93.3% married; 63.3% had only one child	40% had a bachelor's degree or above
Zhang et al. (2019)	China, Hubei	NI	8.1% no senior high school degree, 12.0% senior high school degree, 33.8% college degree, 46.0% masters or doctoral degree, 12.4% below 20,000 RMB, 16.8% 20,000 RMB-80000 RMB, 31.9% 80,000 RMB-150000 RMB; 38.9% above 150,000 RMB

Note: NI = No information

Table 3.3 Research designs and measures of mindful parenting

Authors	Recruitment	Population	Mindful parenting Measures	Research design	Data Collection
An et al. (2021)	Primary schools	Parents of primary schoolers	IM-P 8-item	Cross-sectional	Web-based
Caiado et al. (2020)	Social media, kindergarten	Mothers of infants	IM-P Infant	Cross-sectional	Pen-and-paper Web-based
Corthorn & Milicic (2016)	Catholic University of Chile	Parents of pre-schoolers	IM-P 27-item	Cross-sectional	Pen-and-paper Web-based
de Bruin et al. (2014)	Secondary schools	Parents of secondary schoolers	IM-P 29-item	Cross-sectional	Web-based
Evans et al. (2020)	Government elementary schools	Parents of non-ADHD elementary schoolers	IM-P 8-item	Cross-sectional	Pen-and-paper
Fernandes et al. (2021)	Social media	Parents of infants	IM-P infant	Cross-sectional Longitudinal	Web-based
Gartstein (2021)	Social media, local centres	Parents of infants	MPIS	Cross-sectional	Web-based
Gouveia et al. (2016)	Public schools	Parents of school-aged children/adolescents	IM-P 31-item	Cross-sectional	Pen-and-paper
Han et al. (2021)	Flyers, communication websites	Parents of children from the general community	IM-P 31-item	Cross-sectional	Web-based
Henrichs et al. (2021)	Midwifery practices, general hospital	Pregnant women	IM-P 29-item	Prospective cohort study	Pen-and-paper Web-based
Kim et al. (2019[1])	Cooking information site	Parents of children from the general community	IM-P 18-item	Cross-sectional	Web-based
Kim et al. (2019[2])	Local kindergartens	Parents of pre-schoolers	IM-P 18-item	Cross-sectional	NI
Lo et al. (2018[1])	Preschools	Parents of pre-schoolers	IM-P 23-item	Cross-sectional	Pen-and-paper
Lo et al. (2018[2])	Primary schools	Parents of primary schoolers	IM-P 23-item	Cross-sectional	Pen-and-paper
Lo et al. (2018[3])	Secondary schools	Parents of secondary schoolers	IM-P 23-item	Cross-sectional	Pen-and-paper
Medeiros et al. (2016)	Public school	Parents of school children/adolescents	IM-P 31-item	Cross-sectional	Pen-and-paper

Table 3.3 *(continued)*

Authors	Recruitment	Population	Mindful parenting Measures	Research design	Data Collection
Moreira & Canavarro (2015)	Researcher's network, public schools	Parents of school children/adolescents from the general community	IM-P 31-item	Cross-sectional	Pen-and-paper
Moreira & Canavarro (2017[1])	Social media	Mothers of school-aged children from the general community	IM-P 29-item	Cross-sectional	Web-based
Moreira & Canavarro (2017[2])	Public schools	Parents of basic and secondary schoolers	IM-P 29-item	Cross-sectional	Pen-and-paper
Moreira & Cristina Canavarro (2020)	Public secondary schools	Parents of secondary schoolers	IM-P 29-item	Cross-sectional	Pen-and-paper
Moreira et al. (2016)	Public schools	Mothers of school-aged children/adolescents	IM-P 31-item	Cross-sectional	Pen-and-paper
Moreira et al. (2018)	Public schools	Parents of middle and secondary schoolers	IM-P 29-item	Cross-sectional	Pen-and-paper
Nobre-Triandade et al. (2021)	Social media, kindergarten	Mothers of infants	IM-P Infant	Cross-sectional	Pen-and-paper Web-based
Pan et al. (2019[1])	Online data collection website (sojump)	Parents of children from the general community	IM-P 24-item	Cross-sectional	Web-based
Pan et al. (2019[2])	Schools	Parents of middle schoolers	IM-P 24-item	Cross-sectional	Web-based
Parent et al. (2021)	Amazon's Mechanical Turk	Parents of children from the general community	IM-P 8-item	Cross-sectional Longitudinal	Web-based
Parent et al. (2016a)	Amazon's Mechanical Turk	Parents of children from the general community	IM-P 8-item	Cross-sectional	Web-based
Parent et al. (2016b)	Amazon's Mechanical Turk	Parents of children from the general community	IM-P 8-item	Cross-sectional	Web-based

Table 3.3 *(continued)*

Authors	Recruitment	Population	Mindful parenting Measures	Research design	Data Collection
Park et al. (2020)	Schools	Parents of sixth and seventh graders	IM-P 31-item	Cross-sectional Longitudinal	Pen-and paper Web-based
Ren et al. (2020)	Flyers and communication websites	Parents who took part in previous mindful parenting research (before intervention)	IM-P 23-item	Cross-sectional	Web-based
Turpyn & Chaplin (2016)	Advertisements, flyers, and mailings	Children aged 12-14 years old from the general community and their parents	IM-P 10-item	Cross-sectional Observational	Pen-and-paper/Video-record
Wang et al. (2018a)	Public schools	Middle schoolers and their parents	IM-P 10-item	Cross-sectional	Pen-and-paper Video-record
Wong et al. (2019)	Social media	Children aged 2-4 years old from the general community and their mothers	IM-P 31-item	Cross-sectional Observational	Pen-and-paper
Yang et al. (2021)	Public middle schools	Middle schoolers and their parents	IM-P 24-item	Cross-sectional	Web-based
Zhang et al. (2019)	Kindergartens	Parents of pre-schoolers	IM-P 27-Item	Cross-sectional	Pen-and-paper

Note. IM-P = Interpersonal Mindfulness in Parenting, MPIS = Mindful Parenting in Infancy Scale, NI = No information

Table 3.4 The factor structures of the Interpersonal Mindfulness in Parenting Scale across cultures

Item Number	Versions						
	English	Dutch	Portuguese	Chilean	Korean	Chinese (Hong Kong)	Chinese (Mandarin)
1	LFA	LFA	LFA	LFA	LFA	LFA	IFA
9	LFA	LFA	LFA	LFA	LFA	LFA	IFA
13	LFA	LFA	LFA	LFA	LFA	LFA	IFA
19	LFA	LFA	LFA	LFA	-	LFA	IFA
24	LFA	LFA	LFA	LFA	-	CC	IFA
3	EASC	-	-	-	IEM	-	SRP
6	EASC	-	-	-	IEM	-	SRP
11	EASC	ENRP	SRP	-	IEM	NJAPF	IFA
12	EASC	EAC	EAC	-	NCF	-	EAC
22	EASC	EAC	EAC	EAFC	NCF	CC	EAC
30	EASC	EAC	EAC	EAFC	NCF	CC	EAC
2	SRP	EAS	SRP	SRP	-	EAP	SRP
5	SRP	ENRP	SRP	SRP	-	-	-
8	SRP	EAS	SRP	SRP	ESR	EAP	SRP
14	SRP	ENRP	SRP	SRP	-	NJAPF	IFA
16	SRP	EAS	SRP	SRP	ESR	EAP	SRP
29	SRP	ENRP	SRP	SRP	-	NJAPF	-
4	NJASC	CC	CC	EAFC	-	-	CA
7	NJASC	CC	CC	EAFC	-	-	CA
10	NJASC	ENRP	NJAPF	EAFC	-	-	CA
18	NJASC	NJAPF	NJAPF	NJAS	-	EAP	CA
21	NJASC	EAS	SRP	SRP	ESR	EAP	SRP
23	NJASC	NJAPF	NJAPF	NJAS	NJAPF	NJAPF	-
28	NJASC	CC	CC	EAFC	CC	CC	CA
15	CSC	NJAPF	NJAPF	NJAS	-	-	-
17	CSC	NJAPF	NJAPF	NJAS	NJAPF	NJAPF	-
20	CSC	NJAPF	NJAPF	NJAS	-	EAP	-
25	CSC	CC	CC	EAFC	-	CC	CA
26	CSC	NJAPF	NJAPF	NJAS	NJAPF	NJAPF	-
27	CSC	CC	CC	EAFC	CC	CC	CA
31	CSC	CC	CC	EAFC	CC	CC	CA

Note. LFA = *Listening with Full Attention*; IFA = *Interacting with full attention*; EASC = *Emotional Awareness of Self and Child*; EAC = *Emotional Awareness of Child*; EAS = *Emotional Awareness of Self*; IEM = *Insight into Effect of Mood*; NCF = *Noticing Child's Feeling*; ENRP = *Emotional Nonreactivity in Parenting*; SRP = *Self-regulation in Parenting*; ESR = *Emotional Self-regulation*; NJASC = *Nonjudgmental Acceptance of Self and Child*; NJAPF = *Nonjudgmental Acceptance of Parental Functioning*; NJAS = *Nonjudgmental Acceptance of Self*; CSC = *Compassion for Self and Child*; CC = *Compassion for Child*; EAFC = *Empathy and Acceptance for Child*; CA = *Compassion and Acceptance*

Results

Study Characteristics

Samples

Thirty eligible articles included 36 samples (N range: 37-2237 participants). Almost all samples ($n = 34$, 94.4%) included one parent per family, of whom 48.3-100% were female. Two studies (Medeiros et al., 2016; Moreira & Canavarro, 2017[2]) recruited both parents of the same children, in which case I report mothers' and fathers' data separately. Parents' mean ages ranged from 28.72 to 45 years, and the mean ages of children from 5 months to 14.26 years (*see* Table 3.1). Participants were predominantly recruited in Portugal ($n = 11$, 30.6%), China ($n = 10$, 27.8%), and the USA ($n = 7$, 19.4%). Further sociodemographic information of families is given in Table 3.2.

Study Design

Four studies were longitudinal (Fernandes et al., 2021; Henrichs et al., 2021; Parent et al., 2021; Park et al., 2020); unless otherwise stated, the relationships reported were cross-sectional. Seven studies used the earlier version of the IM-P (Duncan, 2007), 27 studies used the later version (de Bruin et al., 2014)), and two used the recently validated MPIS (Gartstein, 2021). Details of study designs and measures are given in Table 3.3.

Parent Characteristics

Parents' Early Attachment Styles

Two studies examined relationships between parents' own early attachment styles and mindful parenting. Parents who reported less anxious ($r = -.21$) and avoidant attachment ($r = -.25$) had higher mindful parenting (Moreira & Canavarro, 2015), with small effect sizes; results were the same when examined exclusively for mothers in an

overlapping sample ($r = -.22$ for anxious attachment, $r = -.22$ for avoidant attachment; Moreira et al., 2016).

Parental Dispositional Traits

Ten studies examined the relationships between parents' dispositional mindfulness and mindful parenting. There was variability in the magnitude of associations, but all studies found positive correlations between these two constructs cross-sectionally ($rs = .23 - .70$; Corthorn & Milicic, 2016; Gouveia et al., 2016; Han et al., 2021; Kim et al., 2019[2]; Lo et al., 2018[2]; Pan et al., 2019[2], Parent et al., 2016a, 2016b, 2021; Zhang et al., 2019) and four months later ($\beta = .16$; Parent et al., 2021). Several studies reported the relationship between parental mindfulness and mindful parenting to be equal across parent and child gender (Parent et al., 2021; Zhang et al., 2019), child age (Parent et al., 2016a; 2016b; 2021) and sociodemographics (Zhang et al., 2019). One study found stronger associations between mindfulness and mindful parenting for mothers than for fathers (Han et al., 2021).

Six studies with seven samples [Moreira & Canavarro (2017[2]) reported the findings for mothers and fathers separately] examined associations between parents' self-compassion and mindful parenting. In all cases, self-compassion was substantially related to higher mindful parenting cross-sectionally ($rs = .53 - .74$; Fernandes et al., 2021; Gouveia et al., 2016; Kim et al., 2019[1]; Moreira & Canavarro, 2017[2]; Moreira et al., 2016) and longitudinally, two months later ($r = .66$; Fernandes et al., 2021). Associations were comparable for mothers and fathers of the same children ($rs = .57$ and .55, respectively; Moreira & Canavarro, 2017[1]).

Two studies examined the relationship between parental optimism/pessimism and mindful parenting, finding parental optimism to be positively ($rs = .42$ and .48; de

Bruin et al., 2014; Kim et al., 2019[1]) and parental pessimism to be negatively correlated with mindful parenting (r = -.48; Kim et al., 2019[1]).

Parental Cognitive-Affective Processes

Four studies examined parental cognitive-affective processes as predictors of mindful parenting. Mindful parenting was found to be negatively associated with maternal self-reported emotional dysregulation (r = -.54; Caiado et al., 2020) and observed negative emotions, although with a small effect size (r = .17; Turpyn & Chaplin, 2016). Note that an effect size of similar magnitude reported as not significant was found in the same study for observed parental positive emotion (r = .11, p > .01; Turpyn & Chaplin, 2016).

Besides, mindful parenting was positively related to parents' adaptive caregiving representations (rs = .11 – .43; Moreira & Canavarro, 2015) and reflective functioning (rs = .21 and .31; Nobre-Trindade et al., 2021) and negatively related to maladaptive caregiving representations (r = -.33; Moreira & Canavarro, 2015) and reflective functioning deficiencies (r = -.31; Nobre-Trindade et al., 2021). Moreover, the relationships between caregiving representations and mindful parenting were invariant between mothers and fathers (Moreira & Canavarro, 2015).

Parental Psychological Distress and Well-being

Numerous studies in this review examined the associations of parental psychological distress and well-being with mindful parenting. The findings are presented below under four constructs: depression, anxiety, stress, and well-being.

Depression. Eight studies with ten samples [Medeiros et al. (2016) and Moreira & Canavarro (2017[2]) reported the findings for mothers and fathers separately] reported that parents' depression was inversely correlated with mindful parenting cross-sectionally (rs = -.21 – -.60; Caiado et al., 2020; Corthorn & Milicic, 2016; de Bruin et

al., 2014; Fernandes et al., 2021; Kim et al., 2019[1]; Medeiros et al., 2016; Moreira & Canavarro, 2017[2]; Pan et al., 2019[2]) and longitudinally, two months later (rs = -.49 and -.53; Fernandes et al., 2021).

Anxiety. Seven studies with nine samples [Medeiros et al. (2016) and Moreira & Canavarro (2017[2]) reported the findings for mothers and fathers separately] examined the relationship between parent anxiety and mindful parenting. Most of the cross-sectional studies reported that these constructs were inversely and moderately correlated (rs = -.31 – -.58; Caiado et al., 2020; Henrichs et al., 2021; Fernandes et al., 2021; Medeiros et al., 2016; Moreira & Canavarro, 2017[2]; Pan et al., 2019[2]), with one study finding no significant correlation between these two variables for mothers (Corthorn & Milicic, 2016). Mindful parenting was also associated with parental anxiety two months later (rs = -.49 and -.50; Fernandes et al., 2021), and maternal state (but not general) anxiety assessed at 21 weeks gestation negatively predicted mindful parenting assessed at age 4 years (r = -.22; Henrichs et al., 2021).

Stress. Three studies examined the relationship between parental stress and mindful parenting, and all found parental stress to be inversely and moderately correlated with mindful parenting (rs = -.40 and -.45; Corthorn & Milicic, 2016; Kim et al., 2019[2], Moreira & Canavarro, 2017[1]).

Well-being. Four studies examined the associations of parental well-being with mindful parenting, showing mindful parenting to be moderately positively correlated with parents' general psychological (rs = .53 – .62; Kim et al., 2019[2]; Lo et al., 2018[3]) and psychiatric well-being (r = .54; Lo et al., 2018[2]), as well as psychological well-being indicators, including life satisfaction (r = .41; Pan et al., 2019[2]) and subjective happiness (r = .51; Lo et al., 2018[3]).

Parent Gender[1]

Eight studies examined the relationship between parent gender and mindful parenting. Five studies reported that, compared to fathers, mothers reported higher levels of mindful parenting, although effect sizes were small (*rs* = .16 – .19; Gouveia et al., 2016; Mederios et al., 2016; Moreira & Canavarro, 2015; Parent et al., 2016a, 2016b). One study suggested that this finding was applicable to the mothers and fathers of the same children (Mederios et al., 2016). However, the other three studies found no significant differences between mothers' and fathers' mindful parenting (Han et al., 2021; Moreira & Canavarro, 2017[2]; Zhang et al., 2019).

Parent Age

Ten studies examined associations between parental age and mindful parenting, but only two reported a significant correlation, both with small effects and in opposite directions (*r* = -.09; de Bruin et al., 2014; *r* = .10; Parent et al., 2016b). The other eight studies found no significant association between parental age and mindful parenting (Fernandes et al., 2021; Gouveia et al., 2016; Han et al., 2021; Henrichs et al., 2021; Moreira et al., 2016; Nobre-Trindade et al., 2021; Ren et al., 2020; Yang et al., 2021).

Child Characteristics

Child Dispositional Traits

Several studies investigated associations between mindful parenting and child dispositional traits: temperament (*n* = 5), dispositional mindfulness (*n* = 2), and self-compassion (*n* = 2). According to the findings, parents' perceptions of their children's temperament as "difficult" reported lower levels of mindful parenting (*rs* = -.37 – -.43; Corthorn & Milicic, 2016; Lo et al., 2018[1]). Yet, parent-reported infants' negative affect

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[1] All studies reported parent gender, rather than sex.

was not significantly related to mindful parenting, although their positive affect was (rs = .42 and .36; Gartstein, 2021[1], 2021[2]). Similarly, a longitudinal study reported no significant associations between maternal reports of infant negative affect at age 3 months and mindful parenting at age 4 years (Henrichs et al., 2021).

Two studies examined the associations between child self-reported mindfulness and parent-reported mindful parenting: one study found no significant relationship (Wang et al., 2018a), while the other reported a weak positive association between the two constructs, which was invariant across early and middle/late adolescence (r = .15; Moreira et al., 2018).

Two studies examined associations between child self-compassion reported by children and mindful parenting reported by parents. Parents of children with higher self-compassion reported higher mindful parenting (rs = .23); this finding was invariant across early and middle/late adolescence (Moreira et al., 2018). Similar results were obtained when examined exclusively for mothers in an overlapping sample (r = .15; Moreira & Cristina Canavarro, 2020).

Child Cognitive-Affective Processes

Studies reviewed here provided evidence for child cognitive-affective processes (i.e., emotion regulation (n = 3), psychological inflexibility (n = 1), decision-making (n = 1), and infants' regulatory capacity (n = 2)) as related to mindful parenting. Children's adaptive emotion regulation (rs = .21 and .50; Evans et al., 2020; Zhang et al., 2019) and regulatory capacity (r = .63; Gartstein, 2021[1]) reported by parents were positively correlated with mindful parenting, while their emotional lability/negativity (Zhang et al., 2019) and child-reported difficulties in emotion regulation (r = -.23; Moreira & Cristina Canavarro, 2020) were negatively correlated with mindful parenting. Moreover, the associations of adaptive emotion regulation and emotional lability/negativity with

mindful parenting were equal across parent and child gender, family income and parental education (Zhang et al., 2019). Regarding infants' regulation, however, findings were not repeated in other studies, where neither mother-reported nor physiological measure (EEG) of child self-regulation was associated with mindful parenting (Gartstein, 2021[1, 2]).

One study tested the relationship between child-reported psychological inflexibility and mothers' mindful parenting, reporting a small significant negative correlation ($r = -.18$; Moreira & Cristina Canavarro, 2020). Finally, regarding child decision-making processes, observed adaptive *social decision-making processes* (i.e., sharing things with others), but not *individual decision-making processes* (i.e., speed, stress, doubt, and confirmation seeking), were found to be related to higher mindful parenting ($r = .28$; Wong et al., 2019).

Child Psychological Adjustment

Numerous studies examined associations between child adjustment and mindful parenting. I consider these under three broad headings: internalising and externalising behaviours and well-being.

Internalising Behaviours. Seven studies examined the association between child internalising behaviours and mindful parenting. While three cross-sectional studies reported negative associations between mindful parenting and parent-reported child internalising behaviours ($r = -.24 – -.33$; Henrichs et al., 2019; Parent et al., 2016b; 2021), one study found a nonsignificant correlation (Han et al., 2021). Internalising behaviours reported by children were neither cross-sectionally (Wang et al., 2018a; Yang et al., 2021) nor longitudinally (Park et al., 2020) related to mindful parenting.

Externalising behaviours. Five cross-sectional studies out of a total of eight studies revealed that mindful parenting was inversely related to parent-reported child

externalising behaviours with varied effect sizes ($rs = -.06 – -.39$; Han et al., 2021; Henrichs et al., 2019; Lo et al., 2018[1]; Parent et al., 2016b, 2021). There were also small significant cross-sectional correlations between mindful parenting and child-reported substance use and sexual risk behaviours ($rs = -24$ and $-.20$, respectively; Turpyn & Chaplin, 2016) and overall externalising behaviours ($r = -.10$; Yang et al., 2021), although mindful parenting did not predict child-reported overall externalising behaviours longitudinally (Park et al., 2020).

Well-being: Two studies with three samples [Medeiros et al. (2016) reported results for mothers and fathers separately] tested relationships between mindful parenting and child self-reported well-being. Results showed that child well-being was positively related to mindful parenting with a small effect ($rs = .15$ and $.22$; Medeiros et al., 2016; Moreira et al., 2018). These results did not differ by child age (Medeiros et al., 2016; Moreira et al., 2018) or parent gender (Medeiros et al., 2016).

Child Gender[2]

Ten studies examined the relationship between child gender and mindful parenting, most of which found no significant differences between parents of boys and girls (Gouveia et al., 2016; Han et al., 2021; Henrichs et al., 2021; Moreira et al., 2018; Parent et al., 2016a, 2016b; Park et al., 2020; Wang et al., 2018a; Zhang et al., 2019). Two studies found that mothers of girls reported higher mindful parenting than those of boys ($r = .10$; Yang et al., 2021).

Child Age

Ten studies tested the correlations of child age with mindful parenting. Eight of those failed to detect any significant associations (Fernandes et al., 2021; Gouveia et al.,

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[2] Nine studies reported child gender and one study reported child sex. Here for ease of reference, I refer to 'gender'.

2016; Han et al., 2021; Mederios et al., 2016; Moreira et al., 2018; Ren et al., 2020; Wang et al., 2018a; Zhang et al., 2019), while two found mindful parenting to decrease as child age increased (*r* = -.13 and -.15; Nobre-Trindade et al., 2021; Yang et al., 2021).

Family Social Environment Characteristics

Family structure

Eight studies investigated parents' marital status, four investigated the number of children, and one investigated family type in association with mindful parenting. Findings revealed no significant association between marital status and mindful parenting (Fernandes et al., 2021; Gouveia et al., 2016; Henrichs et al., 2021; Moreira et al., 2016; Nobre-Trindade et al., 2021; Parent et al., 2016a; Park et al., 2020), except for one study where parents in a relationship reported higher mindful parenting than single parents, with very small effect size (*r* = .09; Parent et al., 2016b). Three of four studies examining correlations between mindful parenting and the number of children reported mindful parenting scores to decrease with more children (*r*s = -.11 – -.16; Gouveia et al., 2016; Moreira et al., 2016; Yang et al., 2021), although this finding was contradicted in a sample of infants (Nobre-Trindade et al., 2021). No significant association was found between family type (e.g., single-parent or two-parent family) and mindful parenting (Fernandes et al., 2021).

Co-parenting

Only one study examined marital relationship-related variables in association with mindful parenting, reporting that mindful co-parenting (*r* = .76) and co-parenting quality (*r* = .40) were positively associated with mindful parenting across childhood to adolescence (Parent et al., 2016a).

Culture/Residence

Four studies examined ethnicity/race, and three examined the area of residence. No studies observed significant differences in mindful parenting, neither between Dutch and Non-Dutch mothers (Henrichs et al., 2019) nor between "white people" and "people of colour" (Parent et al., 2016a, 2016b; Park et al., 2020). Studies examining associations between residential areas and mindful parenting found no significant differences between parents from urban and rural areas in mindful parenting (Fernandes et al., 2021; Gouveia et al., 2016; Nobre-Trindade et al., 2021).

Socio-economic Status

Parents' employment status ($n = 2$), family income ($n = 6$), financial strain ($n = 1$), and education level ($n = 13$) were examined as SES indicators. None of the studies examining parents' employment status found significant associations with mindful parenting (Fernandes et al., 2021; Nobre-Trindade et al., 2021). Of studies testing the association of family income (and strain) with mindful parenting, two suggested that higher income was related to increased mindful parenting, with a small effect ($rs = .11$; Han et al., 2021; Zhang et al., 2019), while five did not find such relationship with income (Fernandes et al., 2021; Henrichs et al., 2019; Nobre-Trindade et al., 2021; Parent et al., 2016b) or financial strain (Park et al., 2020).

Thirteen studies examined parents' education and mindful parenting, four of which found significant but small positive correlations ($rs = .11 – .15$; Gouveia et al., 2016; Han et al., 2021; Moreira et al., 2016; Yang et al., 2021), and one found a small negative correlation ($r = -.22$; Fernandes et al., 2021). The remainder reported nonsignificant results (de Bruin et al., 2014; Henrichs et al., 2019; Nobre-Trindade et al., 2021; Parent et al., 2016a, 2016b; Ren et al., 2020; Wang et al., 2018a; Zhang et al., 2019).

Parenting Stress

Eight studies tested the associations of mindful parenting with parenting stress and one with burnout. Results showed that mindful parenting was negatively related to parenting stress cross-sectionally (rs = -.35 – -.75; Corthorn & Milicic, 2016; Fernandes et al., 2021; Gartstein, 2021[1], 2021[2]; Gouveia et al., 2016; Lo et al., 2018[1]; Moreira & Canavarro, 2017[1]; Pan et al., 2019[1]) and longitudinally (Fernandes et al., 2021; rs = -.62 and -.64) as well as to parental burnout (r = -.18; An et al., 2021).

Fig. 3.2 The Process of Mindful Parenting Model
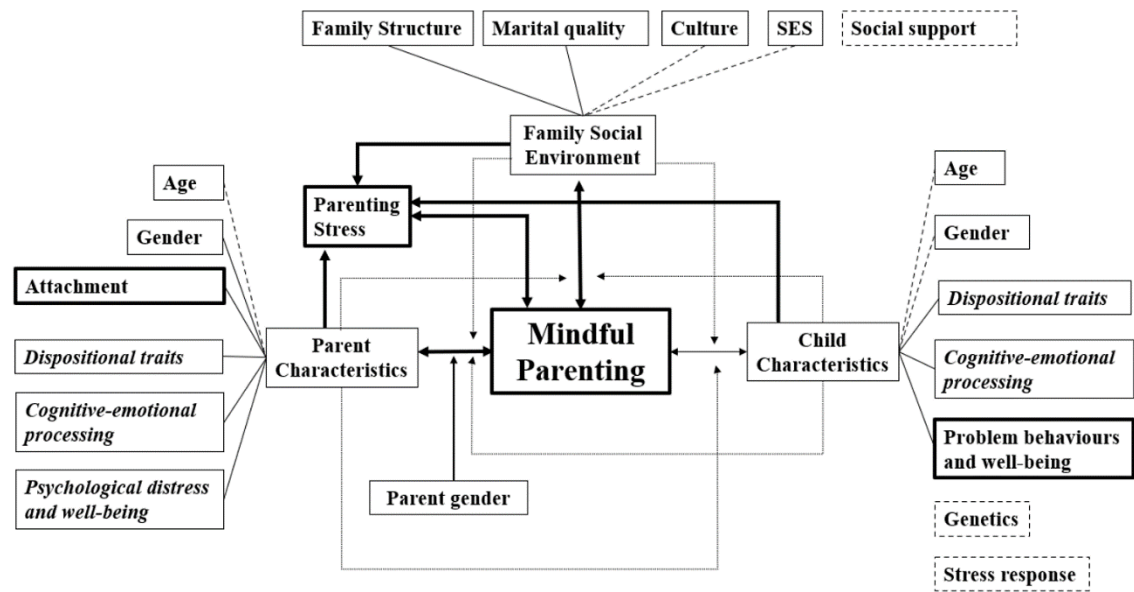
Note: The model is founded on Taraban & Shaw's (2018) model of traditional parenting and developed for mindful parenting from the narrative synthesis. Domains expanded from the traditional model in the mindful parenting literature are given in italic font, and new domains by bold outlines. Associations specific to mindful parenting are represented by thick connecting lines, while associations found for traditional parenting, but negligible for mindful parenting, are depicted using dashed connecting lines. Potential moderating paths suggested in the traditional parenting model, but with insufficient evidence in the mindful parenting literature, are given by densely dotted arrows. Dashed outlines represent domains with no available data in the mindful parenting literature.

Discussion

To my knowledge, this narrative synthesis is the first to propose a process of the mindful parenting model through systematically reviewing the mindful parenting literature (*see* Fig. 3.2). The current review of 30 articles (with 36 studies) published over the last decade suggests mindful parenting to be multi-determined by characteristics of the parent and child and the family social environment, as well as parenting stress. However, I found existing research to be somewhat mixed. The suggested pathways are discussed below, in turn focusing on the most robust findings given the somewhat mixed nature of existing research.

Parental Contributions

Mirroring traditional parenting models, the importance of parent characteristics and parenting stress for mindful parenting was evident from the current review. However, while some contributing pathways for mindful parenting were analogous to those identified for traditional parenting, I found the focus of the literature somewhat surprisingly out of line, leading to important research gaps. For example, I found no mindful parenting studies on parents' experience of early trauma despite trauma being understood as a key risk factor for maladaptive parenting behaviours (e.g., *see* Rowell & Neal-Barnett, 2022). Instead, research on developmental history came from parent attachment style in the mindful parenting literature, showing that mindful parenting was higher in parents with more secure attachment. Given the suggestions that mindful parenting also promotes secure attachment in children (Medeiros et al., 2016), I theorise that mindful parenting may explain the intergenerational transmission of secure attachment as it facilitates parental responsiveness to the child required for such transmission (van IJzendoorn & Bakermans-Kranenburg, 2019).

Parental personality traits were also unexpectedly neglected in the mindful parenting arena. Belsky's Process of Parenting Model draws on the Big-Five traits (i.e., neuroticism, openness, extraversion, conscientiousness, and agreeableness) as determinants of traditional parenting, yet I found no study examining these traits in association with mindful parenting. Instead, studies were focused on other dispositional traits such as optimism, self-compassion, and mindfulness. The most consistent, but arguably least surprising, findings were that parental mindfulness was associated with mindful parenting of children across ages. This association bolsters emerging evidence that interventions focusing on general mindfulness rather than mindful parenting can be effective for parent and child adjustment (Brown et al., 2021) but also suggests that more work is warranted to consider if, when and why dispositional mindfulness and mindful parenting explain independent variance in chosen outcomes.

In line with the traditional parenting literature, both mindful fathering and mothering were found to be multi-determined. Furthermore, although the traditional parenting process has been suggested to differ for mothers and fathers (*see* Cummings et al., 2004), the vast majority of studies indicated that the many predictors of mindful parenting were comparable for mothers and fathers. However, the lack of representation of fathers confounded my consideration of parent gender in the mindful parenting process. I thus advise cautious interpretation since few studies allowed mother/father comparisons. Based on the broader parenting literature, I speculate that the moderating effect of parent gender in the mindful parenting process may be more pertinent than its direct effect on mindful parenting. This is reflected in the model (Figure 3.2), but I encourage future studies to investigate potential differences between mothers and fathers.

Child Contributions

As with parental contributions, the current review revealed that child characteristics explored in the mindful parenting literature were often different from those dominant in traditional parenting. Moreover, although child characteristics were associated with mindful parenting, albeit using rather different constructs (i.e., dispositional traits, problem behaviours and well-being, and cognitive-emotional processing), these findings were somewhat inconsistent, evidencing the need for further work in this area. In part, inconsistencies are likely to be due to the use of different measures of mindful parenting and child mindfulness. Additionally, where associations were found, they were weak, likely reflecting minimised common-method bias (Reio, 2010) because mindful parenting was assessed through parent reports and child mindfulness through child reports. In the same vein, although the current review generally supported child psychological adjustment to be associated with mindful parenting, this link was stronger when child adjustment measures relied on the parent- rather than the child-report. Importantly, in the traditional parenting literature, multiple perspectives on parenting are considered crucial for gaining a clear picture of family relationships (Danese & Widom, 2020); however, multiple perspectives have not yet been explored in the mindful parenting literature. Thus, future studies would be wise to consider multi-method approaches to understanding links between these child characteristics and mindful parenting, including parent and child reports of both domains.

In terms of child cognitive-emotional processing, I found cross-sectional evidence to link child emotion regulation, psychological inflexibility, and decision-making to mindful parenting. This harmonises with traditional parenting literature that has also shown associations with child cognitive-emotional processes (e.g., coping competence (Cappa et al., 2011); emotion regulation (Liu et al., 2021b)). However, for mindful parenting, the interpretation of these child characteristics has been as

'outcomes', whereas they are considered as 'determinants' of parenting for traditional parenting constructs (Taraban & Shaw, 2018). I argue that future mindful parenting research would benefit from considering the nature of these associations, including potential bidirectionality, as considered in the next subsection.

The literature has not revealed child age as a strong child-related determinant of mindful parenting. However, it should be noted that parenting is a dynamic process with unique challenges in each developmental period. The studies reviewed here often included children and their parents from a wide age range rather than focusing on a specific developmental stage. In fact, only a few examined the invariance of the correlates of mindful parenting across the different child developmental stages (Medeiros et al., 2016; Moreira et al., 2018; Parent et al., 2016a). Recognising the lack of studies focusing exclusively on adolescence, I am cautious about the generalisability of the findings and encourage future work to explore the mindful parenting process during adolescence, when mindful parenting becomes particularly important (Duncan et al., 2009).

Bidirectional Associations

Most studies reviewed here assumed parent and child characteristics to have priori-directional relationships with mindful parenting, conceptualised either as 'determinants' or 'outcomes', despite their correlational nature. Specifically, likely influenced by Belsky's (1984) and Abidin's (1992) models, parent psychological distress and parenting stress were most usually considered to be determinants of mindful parenting and child characteristics to be outcomes. However, I suggest these associations are likely to be bidirectional (*see* Fig. 3.2), not least since, owing to the stress-relieving effect of mindfulness; mindful parenting has been theorised to reduce parenting stress and to improve the well-being of parents and children (Duncan et al., 2009; Kabat-Zinn & Kabat-Zinn, 1997). Indeed, this theory has some empirical support

(Shorey & Ng, 2021). While such causal processes are inherently difficult to determine, the traditional parenting literature has repeatedly considered bidirectional processes between child characteristics and parenting (Cappa et al., 2011; Liu et al., 2021b; Pinquart, 2017a; 2017b). Yet, I found no study designed to uncover such processes in the mindful parenting field. Overall, existing research is not sufficient or systematic enough to assume causality in the mindful parenting process. Thus, I recommend that future studies aim to address these relationships within a transactional framework or within genetically-informed designs (e.g., Oliver, 2015) to better examine directionality. In the model (*see* Fig. 3.2), I provisionally suggest potential bidirectional paths and encourage this as an important focus for researchers.

Contextual Factors

One key area of interest in the traditional parenting literature has been contextual sources of stress and support as potential determinants and moderators of the parenting process. Although, again rather surprisingly, there was rare focus on the interparental relationship for mindful parenting in the literature I reviewed, the work in co-parenting implied the so-called 'spillover' effect (Katz & Gottman, 1996) to be evident for mindful parenting, such that parents who are satisfied with their co-parenting relationship were better able to be mindful in their relationships with their children. This association may reflect mindfulness skills in both parenting and co-parenting due to trait mindfulness (Parent et al., 2016a), or indeed, that parenting influences co-parenting relationships (Bögels et al., 2010).

Of particular interest from the current review was the consideration of SES. In the traditional parenting literature, SES was originally considered a determinant in the Process of Parenting Model (Belsky, 1984), but in later models, SES has been posited to serve to moderate the parenting process such that contextual predictors of parenting (including marital relationships) have a greater effect on families with low SES

compared those in higher SES groups (Taraban & Shaw, 2018). In the mindful

parenting literature, there was a lack of evidence to demonstrate SES as shaping the

entire mindful parenting process, such that, as a departure from Taraban & Shaw's

(2018) model, I include SES as a predictor in the family social environment domain (*see*

Fig. 3.2). Although a few studies found a positive impact of higher SES on mindful

parenting, the overarching indication from the systematic review was that mindful

parenting does not vary across socioeconomic contexts, contrary to previous notions

(Smith & Dishion, 2014). Moreover, the associations of mindful parenting with parent

and child characteristics were found to be equal across parents with high and low SES

(Zhang et al., 2019).

Similarly, only a few studies examined the differences in mindful parenting

across majorities and a limited number of minorities in the same country (Henrichs et

al., 2019; Parent et al., 2016a, 2016b; Park et al., 2020). However, no studies focus on

cultural diversity or comparisons across countries or diverse ethnicities. As such,

arguably, my most robust discovery in this area was that existing mindful-parenting

studies are highly biased towards homogeneity, especially in terms of contextual

factors. I posit that assertions of mindful parenting process as SES and culture "free"

(McCaffrey et al., 2017) do not yet have a strong empirical basis. The importance of

additional research here is evident.

The Process of Mindful Parenting Model

The popularity of mindful parenting interventions has grown in recent years, yet,

due to the lack of theoretical understanding of the determinants of mindful parenting, I

argue that such interventions are preliminary. In the current synthesis of the somewhat

scattered literature, I begin to uncover empirical bases for a model of mindful parenting,

extending the literature to suggest a multiply-determined model of the mindful

parenting process (*see* Fig. 3.2). As illustrated, the model suggests that mindful

parenting is both directly influenced by parent characteristics, child characteristics, and family social environment and also indirectly through parenting stress. However, the direction of the relationships remains unclear, and likely bidirectional and moderating processes are underexplored. Additionally, the literature is yet young, and several aspects of traditional parenting models remain under-investigated for mindful parenting. I am thus cautious to stress the preliminary nature of the suggested model. However, as the literature becomes more robust, I hope that the model, and extensions to it, have the potential to guide the identification of families who may be more vulnerable to adopting "unmindful" parenting, as well as to inform evidence-based intervention.

Limitations

I provide a first step towards synthesising extant research on determinants of mindful parenting. However, I acknowledge the limitations of this work. Firstly, many of the associations are based on only a few observations (*see* Fig. 3.3), such that more work is needed to strengthen and replicate the findings on which the model is based. Indeed, the scant and scattered nature of the existing literature led me to not conduct a meta-analysis. However, research in this field is burgeoning, and more systematic literature will eventually afford a meta-analytic approach to further inform the initial model I present. Secondly, I include research with non-clinical samples only. This decision was made to eliminate confounding factors related to particular health conditions in this already diffuse body of literature; however, further work examining clinical samples is warranted. Thirdly, I excluded intervention studies that allow the exploration of directional effects.

Fig. 3.3 The taxonomy of the associations of mindful parenting

Parent Characteristics	Child Characteristics	Family Social Environment
Developmental history	**Dispositional Traits**	**Family Structure**
■Attachment ($n = 2$)	■Negative affect/difficulty ($n = 4$)	■Marital status ($n = 8$)
Dispositional Traits	■Positive affect ($n = 1$)	■Number of children ($n = 4$)
■Mindfulness ($n = 10$)	■Mindfulness ($n = 2$)	■Family type ($n = 1$)
■Self-compassion ($n = 6$)	■Self-compassion ($n = 2$)	**Relationship-related Variables**
■Optimism/pessimism ($n = 2$)	**Cognitive-emotional Processes**	■Coparenting ($n = 2$)
Cognitive-affective Processes	■Emotion regulation ($n = 3$)	**Culture**
■Expressed emotions ($n = 1$)	■Psychological inflexibility ($n = 1$)	■Ethnicity/race ($n = 5$)
■Caregiving representations (n = 1)	■Decision-making ($n = 1$)	■Area of residence ($n = 3$)
■Emotion regulation ($n = 1$)	■Regulatory capacity ($n = 2$)	**Socioeconomic Status**
■Reflective functioning ($n = 1$)	**Child Behaviours and Well-being**	■Employment status ($n = 2$)
Psychological Distress and Well-being	■Internalising Behaviours ($n = 7$)	■Family income ($n = 6$)
■Depression ($n = 8$)	■Externalising behaviours ($n = 8$)	■Financial strain ($n = 1$)
■Anxiety ($n = 7$)	■General psychological/psychiatric well-being ($n = 2$)	■Parent education ($n = 13$)
■Stress ($n = 3$)	**Demographics**	
■General psychological/psychiatric well-being ($n = 2$)	■Age ($n = 10$)	**Parenting Stress**
■Life satisfaction ($n = 1$)	■Gender ($n = 10$)	
■Happiness ($n = 1$)		■ Parenting Stress ($n = 8$)
Demographics		■ Parental Burnout ($n = 1$)
■Age ($n = 10$)		
■Gender ($n = 8$)		

Conclusion

I found initial support for links between mindful parenting and characteristics of parents, children, and family social environment, and also parenting stress. I believe complex effects and bidirectional associations are involved in the mindful parenting process, and uncovering these mechanisms in future systematic research will play a critical role in the development of interventions for vulnerable families. However, the current status of the mindful parenting literature is heterogeneous and somewhat sporadic, such that there is a need for many assumptions to be tested and replicated methodologically, as well as for there to be improved representativeness and characterisation of samples to ensure the generalisability of findings. Moreover, there is no doubt about the importance of future research considering children's perspectives of mindful parenting and cultural variations in the mindful parenting process. Therefore, the following empirical studies aimed to fill these gaps.

Chapter 4

Perspectives of Maternal Mindful Parenting: Development and Initial Validation

of the Mindful Parenting Inventories for Parents (MPIP) and Children (MPIC)

Introduction

Acknowledging social desirability biases in parent-reported parenting (Bornstein et al., 2015) and the importance of subjective experience (Schaefer, 1965), for some time, the traditional parenting literature has recognised the need for child-reported parenting measures (Danese & Widom, 2020; Scott et al., 2011). Furthermore, in line with the traditional parenting literature (e.g., Scott et al., 2011), research has implied that children's subjective experiences of mindful parenting might be more pertinent for understanding child outcomes than parent reports (Liu et al., 2021a; Park et al., 2020).

Notwithstanding, as stated in the introductory chapter, child perceptions of mindful parenting have been little explored, and to date, there is no validated mindful parenting measure for children. One reason for this may lie in conceptual definitions of mindfulness and mindful parenting, both of which have been seen as meta-cognitive/meta-emotional processes (Bishop, 2004; Duncan et al., 2009; 2015), hinting that they may not be observable or able to be reported by others. However, it seems paradoxical to use self-report measures to assess mindfulness concepts that, by definition, require a level of self-awareness to afford accurate reporting: "Reliance on self-report may result in blind spots in the conceptualisation of mindfulness" (May & Reinhardt, 2018, p. 106). Considering inner states to be visible to others, in adults, researchers have demonstrated positive associations between self-reported and 'close others'-reported (e.g., close friends, siblings, partners) mindfulness, with moderate (May & Reinhardt, 2018) to large (Whitney & Chang, 2022) effect sizes. These are promising findings for the assessment of mindful parenting beyond self-report.

Mindful parenting has been argued to include behavioural as well as meta-cognitive processes (Coatsworth et al., 2010), an aspect that further paves the way for others to be able to report this construct. In this conceptualisation, meta-cognitive aspects of mindful parenting are intrapersonal/self-oriented, including parents' values,

beliefs and expectations about parenting and child, as well as awareness of how those affect parenting behaviours. On the other hand, behavioural aspects are interpersonal/interaction-oriented, such as interacting with one's child with full attention, that is, paying heed to their behaviour, feelings, and thoughts without distraction, as well as being non-reactive and showing compassionate acceptance towards the child. Although not theoretically considered as being separable from each other in early conceptualisations of mindful parenting (Duncan et al., 2009), a potential distinction between these intra- and interpersonal aspects of mindful parenting (e.g., awareness of the parent's own emotions *versus* awareness of their child's emotions) has since been demonstrated in empirical studies (Beer et al., 2013; de Bruin et al., 2014; Lo et al., 2018; Moreira & Canavarro, 2017). Importantly, interpersonal aspects of mindful parenting have been shown to manifest in outward behaviours (Duncan et al., 2015; Geier et al., 2012) that may thus be observable and reportable by others.

If mindful parenting is observable, I argue there is no reason to think that children cannot perceive and report on this construct once they reach a developmental stage at which their reports of parenting are considered reliable and valid (Havermans et al., 2015; Taber, 2010). To my knowledge, only three studies (i.e., Lippold et al., 2015; Liu et al., 2019, 2021a) have considered children's perspectives of mindful parenting, using child reports on the IM-P. One of these studies showed that parents reported higher levels of mindful parenting on the *Emotional Awareness* subscale of the IM-P (Liu et al., 2021a). However, although these studies made an important first step in this area, the IM-P has not been validated for use with children, nor has it been assessed for measurement invariance. Thus, it is not clear whether any difference between parents' and children's reports of mindful parenting is a genuine perspective difference or is due to the differences in how parents and children interpret the scale items (Havermans et al., 2015; Russell et al., 2016). This lack of validation for child reports may bring

research limitations, not only because of a reliance on children's higher-order social-cognitive abilities for reporting intrapersonal domains (i.e., first and second-order theory of mind; Westby & Robinson, 2014) but also because of the potential for item miscomprehension.

Current Study

To facilitate a better understanding of parent and child perspectives on interpersonal aspects of mindful parenting, the current study aimed to develop and validate new parallel parent and child inventories of this construct. Thus, the Mindful Parenting Inventories for Parents (MPIP) and Children (MPIC) were developed to enable the assessment of parent and child perceptions of mindful parenting. As discussed in Chapter 1 and Chapter 3, due to the necessity of understanding the role of mindful parenting in non-clinical contexts (Kil & Antonacci, 2020) and during the adolescent period when mindful parenting may be particularly important (Duncan et al., 2009), this study focused on typically developing children aged 11-16 years and their parents.

A small feasibility study with parents and children was conducted on initial versions of the inventories (*see* Chapter 2), based on which the inventories were revised and validated in the current larger sample. The current study, first, explored whether MPIP/MPIC consists of five factors as suggested in the mindful parenting model (Duncan et al., 2009), then tested measurement invariance and latent mean differences between mothers' and their children's perspectives of mindful parenting. Second, mother and child agreement on reports of mindful parenting was examined, anticipating small-to-moderate positive correlations between MPIP and MPIC based on the literature (Cohen & Rice, 1997; Korelitz & Garber, 2016). Third, this study assessed convergent validity with measures of positive parenting, inconsistent discipline, and poor supervision, namely, 'traditional' parenting constructs. It was hypothesised that

MPIP/MPIC would be positively associated with parent dispositional mindfulness and positive parenting but negatively associated with negative parenting constructs. Fourth, concurrent validity was examined, hypothesising MPIP/MPIC would be negatively correlated with mothers' psychological distress (depression, anxiety, stress) and child problem behaviours (internalising and externalising) but positively correlated with child prosocial behaviours. Finally, this study examined predictive validity, expecting MPIP/MPIC to predict child behaviours over and above parental dispositional mindfulness and traditional parenting.

Method

Participants

Two out of 134 UK-based mothers who met the eligibility criteria (*see* Chapter 2) were excluded from the current study because they completed less than eighty per cent of the study questionnaire. Thus, the final mother sample consisted of 132 birth mothers, with 62 (47%) completing the MPIP four months later to assess test-retest reliability. Mothers' ages ranged from 28 to 57 years ($M = 44.59$ years, $SD = 5.48$ years), most reported their marital status as married ($n = 112$, 84.8%), and they had between one and five children ($M = 2.12$; $SD = 0.84$). Mothers predominantly self-identified as 'white/white British' ($n = 112$, 84.8%) and had an undergraduate degree or higher ($n = 102$, 77.3%). Regarding subjective SES, mothers reported a mean score of 6.41 ($SD = 1.80$; ranged from 1 to 10) on the Macarthur Scale of Subjective Social Status (Adler et al., 2000). Target children's ages ranged from 11 to 16 years old ($M = 13.12$ years, $SD = 1.62$ years; 68 girls (51.5%)), 90 of whom assented to participate (68.2%). Therefore, 90 mothers and their children (aged 11 to 16 years ($M = 13.09$ years, $SD = 1.66$ years; 48 girls (53.3%)) comprised the dyadic sample. Fifty-one out of 90 children (56.7%) completed the retest assessment of MIPC four months later.

Measures

Mothers reported their sociodemographics using the Demographic Information Form. The 25-item and five-factor MPIP/MPIC suggested by the feasibility work was used to assess mothers' and children's perspectives of mindful parenting in the current study. Note that analyses of the structure of the inventories led to a revised 18-item version of the scales used in the subsequent validation analyses (*see* detail below). The 15-item Five Facet Mindfulness Questionnaire (FFMQ; Gu et al., 2016) was used to evaluate mothers' dispositional mindfulness (Cronbach's α = .79). The 21-item version of the Depression Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995) was used to assess mothers' depression (Cronbach's α .90), anxiety (Cronbach's α .88), and stress (Cronbach's α .89), each with seven items. The 9-item short version of the Alabama Parenting Questionnaire (APQ; Elgar et al., 2007) was used to assess mothers' and children's perceptions of positive parenting (Cronbach's α = .83 and .79, respectively), inconsistent discipline (Cronbach's α = .80 and .61, respectively) and poor supervision (Cronbach's α = .71 and .64, respectively). Mothers' and children's reports on child internalising (Cronbach's α = .85 and .83, respectively), externalising (Cronbach's α = .83 and .83, respectively) and prosocial behaviours (Cronbach's α = .76 and .69, respectively) using the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). A detailed description of the measures is given in Chapter 2.

Data Analyses

Missing data were completely at random (Little, 1988) in the mother (χ^2 = 679.202*; df* = 657; *p* = .266) and child samples (χ^2 = 75.319; *df* = 58; *p* = .063). Thus, the expectation maximisation method was used to handle missing data (Tabachnick & Fidell, 2007). Both mother- and child-reported poor supervision parenting scores (skewness = 1.59, kurtosis = 2.49; skewness = 1.52, kurtosis = 2.12, respectively), as

well as mothers' anxiety score (skewness = 1.55, kurtosis = 1.81), deviated from the normal distribution. Thus, before the analysis, log 10 transformation was carried out to render normality for these scales (skewness = 0.83, kurtosis = -0.09 for transformed mother-reported poor supervision; skewness = 0.77, kurtosis = -0.33 for transformed child-reported poor supervision; skewness = 0.98, kurtosis = -0.06 for transformed maternal anxiety).

Binary logistic regression analysis was used to determine factors that might affect children's participation in the research following maternal consent. I analysed whether sociodemographic variables (child sex, child and mother age, number of children mothers had and subjective SES) and main variables (mindfulness, depression, anxiety, stress, mother-reported positive parenting, inconsistent discipline, poor supervision as well as internalising, externalising, and prosocial behaviours of children) predicted children' participation. The results showed no significant differences between mothers whose children did and did not complete the questionnaires (χ^2 = 19.286, df = 15; Cox-Snell R^2 = 0.14, p = .201).

I examined the variance of each item on the parallel inventories, MPIP/MPIC. Item 20, "I am kind towards my child when she/he is going through a hard time"/"My mother is kind towards me when I am going through a hard time", was deleted due to its lack of variance in the mother sample (σ^2 = 0.50). The remaining 24 items were subjected to a series of Exploratory Principal Component Analyses (PCA) with Promax rotation to examine the factor structure of the MPIP in the mothers' data.

Subsequently, I conducted initial Confirmatory Factor Analyses (CFA) in both mother and child samples to establish a baseline model for mothers and their children in order to illuminate a subsequent multiple-group CFA to test the measurement invariance of the new inventories across reporters (mothers and their children) in three hierarchical steps: (1) configural invariance, (2) metric invariance, and (3) scalar invariance (Byrne,

2016; Putnick & Bornstein, 2016). I used the cut-off examined criteria of < -0.005 (CFI) and > 0.010 (RMSEA) and also examined χ^2 deterioration ($p < .05$) to establish invariance (Chen, 2007; *see* also Chapter 2).

Pearson correlations were conducted to examine within- and cross-rater associations among MPIP/MPIC totals and subscales. I also used both within- and cross-reporter correlational analyses to test MPIP/MPIC convergent validity – how well the new instruments represent the concept to be measured – using the FFMQ and APQ, as well as concurrent validity – associations between the new instruments and expected outcomes – using the SDQ and DASS-21. Lastly, I conducted within- and cross-reporter hierarchical linear regression analyses to test the predictive validity of MPIP/MPIC in their association with child SDQ outcomes, over and above maternal dispositional mindfulness (FFMQ), traditional parenting (APQ) and sociodemographic covariates.

Results

MPIP/MPIC Structure

Following PCA with 24 items from MPIP (*see* Data Analyses), I excluded six items (Q7, "I apologise when I have acted in some way that hurts my child's feelings; Q8, "I listen carefully to my child's ideas, even when I do not agree with them"; Q10, "I give my child space to calm down when she/he is angry"; Q14, "I fully focus on the activities my child and I are doing together"; Q21, "I take out my frustration on my child even when it is not about her/him"; and Q23, "I leave space for my child to speak") due to cross-loadings. A four-component solution (KMO = 0.87, Bartlett's sphericity test $\chi^2(153) = 994.430$, $p < .001$), was revealed for the 18-item MPIP, with the principal component explaining 62.05% of the variance. All items had communalities above 0.48 and factor loadings above 0.57 (*see* Table 4.1).

Table 4.1 Four-factor solution for the Mindful Parenting Inventory for Parents (MPIP)

		MPIP Subscales			
N = 132	**SRP**	**ACC**	**BMC**	**AC**	**Communalities**
16. I have difficulty calming down after my child and I have argued.*	0.82				0.56
6. I get carried away with my own feelings when my child and I argue.*	0.81				0.69
1. I quickly become defensive when my child and I argue.*	0.80				0.60
5. My tone of voice is calm when I am giving my child a warning.	0.79				0.58
11. I get annoyed easily if my child interrupts me while I am doing something else.*	0.78				0.60
15. I am patient with my child.	0.59				0.63
13. I accept my child exactly as she/he is.		0.85			0.71
3. I accept that my child has opinions that are different from mine.		0.79			0.51
25. I am tolerant of my child's imperfections.		0.69			0.57
22. I understand why my child behaves the way she/he does.		0.59			0.55
18. I listen to my child without judging or criticising her/him		0.57			0.68

Table 4.1 (*continued*)

N = 132	MPIP Subscales				
	SRP	**ACC**	**BMC**	**AC**	**Communalities**
24. My child needs to call out to me a few times to make me notice her/him even if we are in the same room.*			0.86		0.70
19. I rush through activities with my child without really paying attention.*			0.78		0.67
9. I am easily distracted when my child and I are doing things together.*			0.74		0.59
4. I listen to my child with one ear because I am busy thinking about something else.*			0.59		0.48
2. I understand what my child is thinking, even when she/he does not tell me.				0.83	0.68
12. I understand how my child feels just by looking at her/him.				0.82	0.79
17. I notice the changes in my child's mood.				0.67	0.59

SRP = Self-Regulation in Parenting; *ACC* = Acceptance and Compassion towards Child; *BMC* = Being in the Moment with Child; *AC* =

Awareness of Child, *represents reverse coded items*

Because of the need to test the similarity of the factor structure of the parallel inventories for mothers and their children, I examined invariance between mother and child dyad reports of mindful parenting using multiple-group CFA, testing the nested model using multiple-group CFA after establishing the baseline model for each group. Following poor baseline model fit indices in the mothers' data ($\chi^2(129) = 203.317$, $\chi^2/df = 1.576$, CFI = 0.878, RMSEA = 0.080 95% CI [0.06, 0.10], SRMR = 0.080), I found that allowing error covariances between items 6 and 15 and between items 1 and 15 afforded improvement to model fit ($\chi^2(127) = 181.688$, $\chi^2/df = 1.431$, CFI = 0.911, RMSEA = 0.070 95% CI [0.05, 0.09], SRMR = 0.078; $\Delta\chi^2(2) = -21.629$, $p < .001$, ΔCFI = 0.033). Adequate fit indices were found for the children's baseline model ($\chi^2(129) = 197.864$, $\chi^2/df = 1.534$, CFI = 0.905, RMSEA = 0.077 95% CI [0.06, 0.10], SRMR = 0.075).

Multiple-group CFA showed that the unconstrained model (with the error covariances between items 6 and 15 and between items 1 and 15) had an acceptable fit ($\chi^2(254) = 377.311$, $\chi^2/df = 1.485$, CFI = 0.908, RMSEA = 0.052 295% CI [0.04, 0.06], SRMR = 0.078), supporting configural invariance between children and their mothers. The metric model with constrained factor loadings across groups also showed sufficient fit ($\chi^2(268) = 398.186$, $\chi^2/df = 1.486$, CFI = 0.903, RMSEA = 0.052 95% CI [0.04, 0.06], SRMR = 0.086; $\Delta\chi^2(14) = 20.875$, $p = .11$, ΔCFI = -0.005, ΔRMSEA = 0.000). As chi-square change was insignificant and CFI did not deteriorate more than |-.005| between the configural (unconstrained) model and metric model, I concluded that full metric invariance across the groups was supported, suggesting MPIP/MPIC factor loadings to be equal between mothers and their children. Compared to the metric model, however, the model fit was worse in the scalar model ($\chi^2(282) = 471.105$, $\chi^2/df = 1.671$, CFI = 0.859, RMSEA = 0.061 95% CI [0.05, 0.07], SRMR = 0.085, $\Delta\chi^2(14) = 72.919$, $p < .001$, ΔCFI = -0.044, ΔRMSEA = 0.009), implying that not all item intercepts were

invariant between the mothers and their children. Making sure that at least half of the items in a factor were restricted to be equal, I released a total of four intercepts (Item 4. Item 5, Item 13, and Item 24) in a backward approach until the model showed partial scalar invariance (Putnick & Bornstein, 2016; $\chi^2(278) = 414.716$, $\chi^2/df = 1.492$, CFI = 0.898, RMSEA = 0.053 95% CI [0.04, 0.06], SRMR = 0.086, $\Delta\chi^2(10) = 16.530$, $p = .09$, ΔCFI = -0.005, ΔRMSEA = 0.001). Results suggested that the majority of the item intercepts were equal across the groups.

I present the final parallel inventories, MPIP/MPIC, consisting of 18 items, eight of negative and ten of positive valence, with a four-dimensional structure, including subscales of *Self-regulation in Parenting, Acceptance and Compassion towards Child, Being in the Moment with Child* and *Awareness of Child* (*see* Fig. 4.1). MPIP explained 47.4% of the total variance (17.8% explained by Self-regulation in Parenting, 10.9% by Acceptance and Compassion towards Child, 9.6% by Being in the Moment with Child and 9.1% by Awareness of Child), and MPIC explained 50.2% of the total variance (16.3% explained by Self-regulation in Parenting, 13.7% by Acceptance and Compassion towards Child, 10.5% by Being in the Moment with Child and 9.7% by Awareness of Child).

The factor estimates of MPIC/MPIC obtained in the scalar invariant model are presented in Figure 4.1. I then tested latent, rather than observed, level mean differences (i.e., using *t*-test) as I only achieved partial invariance (Steinmetz, 2013). Results showed that mothers perceived themselves as less mindful in Being in the Moment with Child ($z = -2.97$, $p = .003$) but more mindful in Awareness of Child ($z = 2.73$, $p = .006$) aspects of mindful parenting than their children did. There were no latent mean differences between mothers and children in Self-regulation in Parenting ($z = -1.26$, $p = .207$) or Acceptance and Compassion towards Child ($z = 0.67$, $p = .504$).

Fig. 4.1 Factor loadings of Mindful Parenting Inventory for Parents (MPIP) and Children (MPIC) in the multiple-group confirmatory factor analysis (UK)
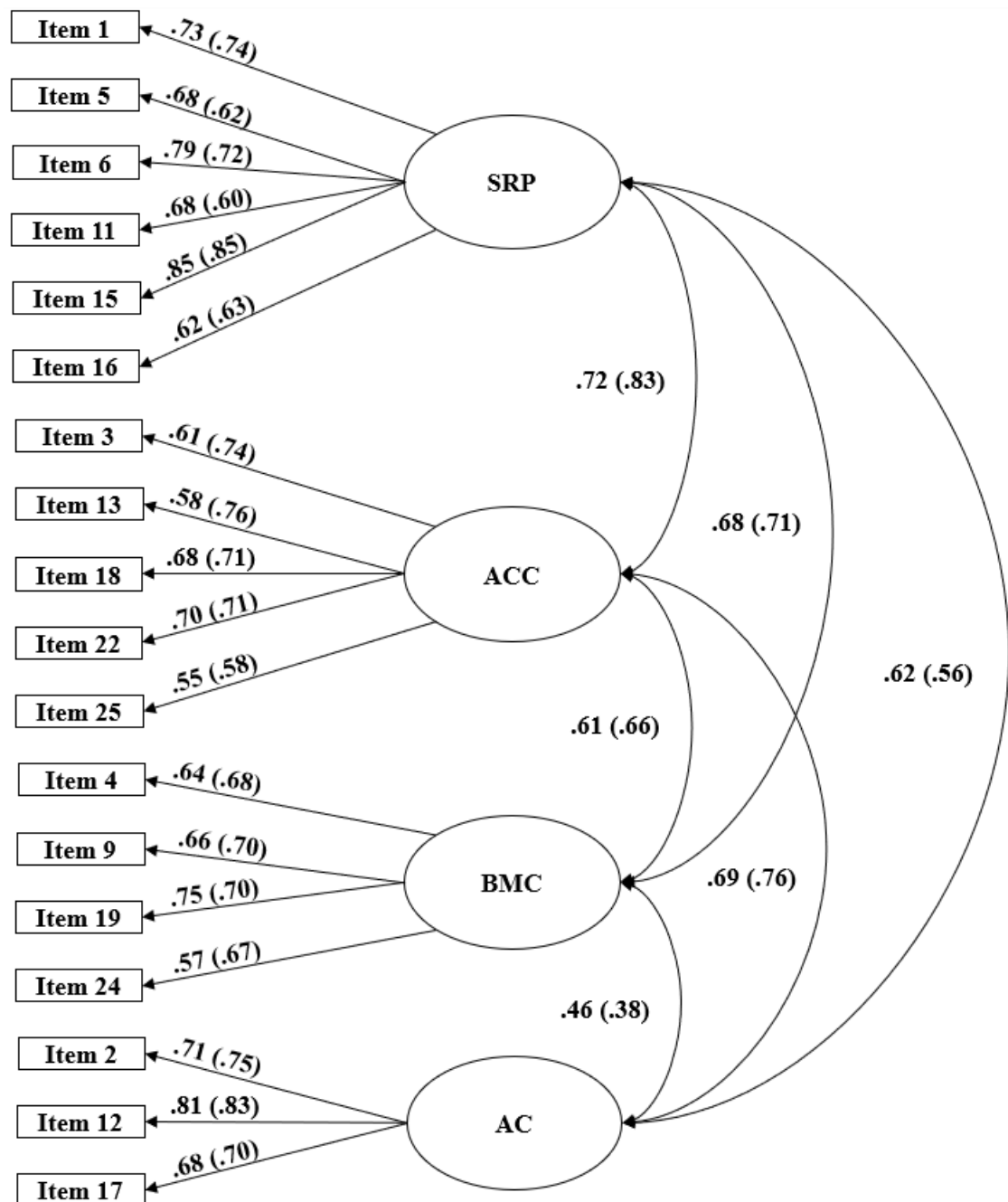
SRP = Self-Regulation in Parenting, AAC = Acceptance and Compassion towards Child, BMC = Being in the Moment with Child, AC = Awareness of Child; *(MPIC equivalents of MPIP factor loadings are given in brackets)*

Inter-item consistency (Cronbach's α) was .89 for the MPIP total and ranged from .75 to .86 for the MPIP subscales (Cronbach's α = .86 for Self-Regulation in Parenting, .79 for Acceptance and Compassion towards Child, .75 for Being in the Moment with Child and .77 for Awareness of Child). Mirroring these results, the α was .92 for the MPIC total and ranged from α = .78 to .85 for the MPIC subscales (Cronbach's α = .85 for Self-Regulation in Parenting, .82 for Acceptance and Compassion towards Child, .78 for Being in the Moment with Child and .81 for Awareness of Child).

Within-reporter correlations of subscales were medium to large in magnitude, as were cross-reporter correlations (*see* Table 4.2). Most of the sociodemographic variables (i.e., child age and sex, mother age, and subjective SES) were not related to total MPIP/MPIC. However, with small effect sizes, as the number of children and perceived SES increased, mothers reported somewhat higher Self-Regulation in Parenting ($r = .17$, $p = .046$) and Awareness of Child ($r = .19$, $p = .032$), respectively. Child reports did not mirror these findings, and no relationships were found between child-reported mindful parenting and sociodemographic variables.

Four-month test-retest reliability (r) was .83 ($p < .001$) for the MPIP total and ranged from .66 to .77 ($p < .001$) for the MPIP subscales ($r = .77$ for Self-Regulation in Parenting, .66 for Acceptance and Compassion towards Child, .76 for Being in the Moment with Child and .67 for Awareness of Child). Child reports mirrored these results showing that four-month test-retest reliability (r) was .81 ($p < .001$) for the MPIC total and ranged from .67 to .78 ($p < .001$) for the MPIP subscales ($r = .78$ for Self-Regulation in Parenting, .75 for Acceptance and Compassion towards Child, .67 for Being in the Moment with Child and .75 for Awareness of Child).

Table 4.2 Within-reporter intercorrelations of Mindful Parenting Inventories for Mothers (above the diagonal) and Children (below the diagonal)

and cross-reporter correlations (on the diagonal, bolded)

N = 132 (90)	MPIP/MPIC	SRP	ACC	BMC	AC	MPIC Mean (SD)	MPIC Skewness	MPIC Kurtosis
MPIP/MPIC	**.61*****	.86***	.79***	.71***	.66***	3.67 (0.69)	-0.77	0.75
SRP	.90***	**.63*****	.55***	.49***	.38***	3.41 (0.86)	-0.56	0.07
ACC	.88***	.70***	**.45*****	.36***	.47***	4.07 (0.77)	-0.83	0.11
BMC	.77***	.61***	.55***	**.47*****	.40***	3.63 (0.85)	-1.01	1.40
AC	.69***	.47***	.62***	.32**	**.39*****	3.59 (0.88)	-0.78	0.41
MPIP Mean (SD)	3.61 (0.51)	3.28 (0.71)	3.97 (0.61)	3.49 (0.65)	3.83 (0.68)			
MPIP Skewness	0.12	0.22	-0.71	0.03	-0.22			
MPIP Kurtosis	-0.61	-0.17	0.39	-0.12	-0.39			

$^{**}p < .01,$ $^{***}p < .001.$ *MPIP* = Mindful Parenting Inventory for Parents, *MPIC* = Mindful Parenting Inventory for Children, *SRP* = Self-Regulation in

Parenting, *ACC* = Acceptance and Compassion towards Child, *BMC* = Being in the Moment with Child, *AC* = Awareness of Child

MPIP/MPIC Validation

I tested the convergent validity of MPIP/MPIC using mother and child reports of traditional parenting dimensions (APQ) and mothers' self-reported dispositional mindfulness (FFMQ). As given in Table 4.3, all within-reporter and cross-reporter correlations of MPIP/MPIC total scores with mother- and child-reported subscales of APQ were significant, except for the correlation between MPIP and child-reported poor supervision ($r = -.11$, $p = .33$). Particularly, MPIP/MPIC total scores were positively correlated with positive parenting ($rs = .29$ to .66), while they were negatively associated with inconsistent discipline ($rs = -.31$ to -.46) and poor supervision ($rs = -.26$ to -.32). Most within-reporter and cross-reporter correlations of MPIP/MPIC dimensions with mother- and child-reported positive parenting were significant ($rs = .18$ to .70), except for the correlations between mother-reported Self-Regulation in Parenting and child-reported positive parenting ($r = .20$, $p = .064$) as well as between mother-reported Being in the Moment with Child and child-reported positive parenting ($r = .12$, $p = .260$).

Similarly, except for Awareness of Child reported by children, all MPIP/MPIC dimensions were significantly related to mother- and child-reported inconsistent discipline ($rs = -.24$ to -.45). However, whilst mother-reported poor supervision was significantly related to most of the dimensions of MPIP/MPIC ($rs = -.18$ to -.34) – except for mother-reported Acceptance and Compassion towards Child ($r = -.14$, $p = .122$)--, child-reported poor supervision was significantly associated only with child-reported Self-Regulation in Parenting ($r = -.22$, $p = .042$) and Acceptance and Compassion towards Child ($r = -.29$, $p = .008$).

Finally, as expected, MPIP and MPIC were positively correlated with mothers' self-reported dispositional mindfulness ($r = .51$, $p < .001$; $r = .38$, $p < .001$, respectively). Indeed, all the dimensions of MPIP/MPIC were significantly related to

FFMQ (rs = .26 to .45). The correlates of MPIP/MPIC subscales with APQ and FFMQ are given in Table 4.3.

Bivariate correlations of MPIP/MPIC with mother- and child-reported child behaviours (SDQ) and mothers' self-reported psychological distress (DASS-21) to verify concurrent validity were all small-to-large in magnitude (*see* Table 4.3). As expected, MPIP/MPIC total scores negatively correlated with mother- and child-reported internalising (rs = -.41 to -.56) and externalising behaviours (rs = -.46 to -.64), while they were positively correlated with children's prosocial behaviours (rs = .49 to .57). Indeed, all the dimensions of MPIP/MPIC were significantly related to mother- and child reported internalising (rs = -.21 to -.50), externalising (rs = -.31 to -.58) and prosocial behaviours (rs = .26 to .54). The exception to this was that mother-reported Being in the Moment with Child was not significantly correlated with child-reported prosocial behaviours (r = .20, p = .061).

Both MPIP and MPIC total scores were also negatively related to maternal reports of mothers' depression (r = -.36, p < .001; r = -.27, p = .010, respectively) and stress (r = -.42, p < .001; r = -.29, p = .005, respectively), but only MPIP was related to maternal anxiety (r = -.20, p = .019). Besides, correlations between MPIP dimensions and maternal distress were significant (rs = -.22 to -.34 for depression; rs = -.17 to -.22 for anxiety; rs = -.21 to -.44 for stress), except for the correlation between Acceptance and Compassion towards Child and anxiety (r = -.04, p = .664). Self-Regulation in Parenting and Being in the Moment with Child dimensions of MPIC only were also significantly related to maternal depression (r = -.30, p = .005; r = -.22, p = .039, respectively) and stress (r = -.37, p < .001; r = -.27, p = .009, respectively). However, none of the MPIC dimensions was associated with mothers' anxiety (*see* Table 4.3). Overall, these findings indicated that higher levels of mindful parenting, as reported by both mothers and children, were related to lower levels of maternal psychological

distress and children's adjustment problems, providing evidence of concurrent validity for the new inventories.

Table 4.3 Correlations of Mindful Parenting Inventories for Parents (MPIP) and Children (MPIC) with traditional parenting, maternal dispositional mindfulness and psychological distress, and child behaviours

	MPIP (MPIC)	MPIP-SRP (MPIC-SRP)	MPIP-ACC (MPIC-ACC)	MPIP-BMC (MPIC-BMC)	MPIP-AC (MPIC-AC)
Mother-reports					
FFMQ	.51*** (.38***)	.45*** (.37***)	.42*** (.28**)	.35*** (.33**)	.29*** (.26*)
Positive Parenting	.39*** (.36***)	.18* (.24*)	.34*** (.40***)	.39*** (.26*)	.41*** (.32**)
Inconsistent Discipline	-.46*** (-.31**)	-.44*** (-.26*)	-.32*** (-.30**)	-.33*** (-.27**)	-.28** (-.15)
Poor Supervision	-.26** (-.32**)	-.18* (-.25*)	-.14 (-.34**)	-.28** (-.21*)	-.28** (-.23*)
Depression	-.36*** (-.27*)	-.34*** (-.30**)	-.23** (-.19)	-.28** (-.22*)	-.24** (-.13)
Anxiety	-.20* (-.16)	-.18* (-.17)	-.04 (-.14)	-.22* (-.08)	-.20* (-.09)
Stress	-.42*** (-.29**)	-.44*** (-.37***)	-.21* (-.18)	-.30* (-.27**)	-.28** (-.05)
Internalising	-.50*** (-.47***)	-.36*** (-.40***)	-.38*** (-.39***)	-.43*** (-.45***)	-.42*** (-.29**)
Externalising	-.53*** (-.46***)	-.50*** (-.40***)	-.44*** (-.41***)	-.31*** (-.33**)	-.33*** (-.37)
Prosocial	.50*** (.57***)	.38*** (.47***)	.50*** (-.54***)	.26** (.36***)	.43*** (.51***)

Table 4.3 *(continued)*

Child-reports	MPIP (MPIC)	MPIP-SRP (MPIC-SRP)	MPIP-ACC (MPIC-ACC)	MPIP-BMC (MPIC-BMC)	MPIP-AC (MPIC-AC)
Positive Parenting	.29** (.66***)	.20 (.52***)	.28** (.70***)	.12 (.48***)	.37*** (.47***)
Inconsistent Discipline	-.44*** (-.32**)	-.44*** (-.34**)	-.31** (-.25**)	-.24* (-.29**)	-.36*** (-.12)
Poor Supervision	-.11 (-.26*)	-.10 (-.22*)	-.09 (-.28**)	-.08 (-.19)	-.04 (-.14)
Internalising	-.41*** (-.56***)	-.34*** (-.49***)	-.34** (-.50***)	-.21* (-.46***)	-.42*** (-.35***)
Externalising	-.55*** (-.64***)	-.51*** (-.58***)	-.48*** (-.55***)	-.32** (-.53***)	-.39*** (-.38***)
Prosocial	-.49*** (-.49***)	-.43*** (-.39***)	-.42*** (-.43***)	-.20 (-.39***)	-.50*** (-.41***)

$^*p < .05,$ $^{**}p < .01,$ $^{***}p < .001.$ *FFMQ* = Five Facet Mindfulness Questionnaire. *Correlations of MPIC with FFMQ, child behaviours and traditional*

parenting dimensions are given in the brackets.

Finally, I conducted a series of hierarchical regression analyses to explore the predictive validity of MPIP/MPIC in their association with child behaviours over and above mothers' dispositional mindfulness and traditional parenting concepts. Before analysis, the relationships between sociodemographic variables (child sex, child and mother age, number of children mothers had, and SES) and child behaviours were examined to identify potential variables to be controlled. Results showed small, significant correlations between mother-reported internalising behaviours and maternal age ($r = -.20$, $p = .022$) and SES ($r = -.22$, $p = .011$) in the mother sample. In addition, small significant correlations were found between mother-reported internalising behaviours and child age ($r = -.23$, $p = .28$), maternal age ($r = -.24$, $p = .025$), and SES ($r = -.23$, $p = .032$); between child-reported internalising behaviours and SES ($r = -.22$, $p = .034$); and between child-reported prosocial behaviours and child sex ($r = -.26$, $p = .012$) in the dyadic sample. Significantly related correlates were included in hierarchical regression models.

Hierarchical regression showed that MPIP significantly explained additional variance in child behaviours after accounting for sociodemographic correlates, mothers' dispositional mindfulness and traditional parenting. MPIP negatively predicted both mother- and child-reported internalising ($\beta = -.31$, $t = -3.34$, $SE = 0.08$, $p < .001$; $\beta = -.38$, $t = -2.88$, $SE = 0.12$, $p = .005$, respectively) and externalising behaviours ($\beta = -.38$, $t = -4.20$, $SE = 0.07$, $p < .001$; $\beta = -.40$, $t = -3.44$, $SE = 0.10$, $p < .001$, respectively) and positively predicted mother- and child-reported prosocial behaviours ($\beta = .37$, $t = 3.74$, $SE = 0.09$, $p < .001$; $\beta = .53$, $t = 4.42$, $SE = 0.09$, $p < .001$, respectively).

Similarly, after accounting for sociodemographic correlates, mothers' dispositional mindfulness and traditional parenting, MPIC significantly added variance in explaining child behaviours. Specifically, MPIC negatively predicted child-reported internalising behaviours ($\beta = -.33$, $t = -2.46$, $SE = 0.09$, $p = .016$) and child-reported

externalising behaviours (β = -.37, t = -3.05, SE = 0.07, p = .003). Besides, increased

MPIC predicted higher levels of prosocial behaviours reported by mothers (β = .36, t =

2.63, SE = 0.09, p = .010) and children (β = .49, t = 3.39, SE = 0.08, p = .001). All

hierarchical regression models are provided in Table 4.4

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Table 4.4 The final steps of the hierarchical regression analyses predicting internalising, externalising and prosocial behaviours from mindful parenting reported by mothers (MPIP) and children (MPIC), maternal dispositional mindfulness, traditional parenting and sociodemographic correlates

	Mother-reported child behaviours						Child self-reported behaviours					
	MPIP Models ($n = 130$)			MPIC Models ($n = 89$)			MPIP Models ($n = 89$)			MPIC Models ($n = 89$)		
DVs	Internalising β	Externalising β	Prosocial β	Internalising β	Externalising β	Prosocial β	Internalising β	Externalising β	Prosocial β	Internalising β	Externalising β	Prosocial β
IVs												
Child sex	-.19**	.06	-.08	-.11	.03	-.06	-.13	-.09	-.27**	-.15	-.06	-.28**
Child age	-.15	-.12	.01	-.21*	-.12	.11	-.07	-.23*	-.01	-.16	-.24*	.03
Mother age	-.11	.10	-.06	-.15	.01	.08	.07	.06	.05	.07	.02	.14
SES	-.06	-.10	.01	-.11	-.07	-.01	-.23*	-.12	.13	-.19	-.08	.05
FFMQ	-.15	-.03	.06	-.25*	-.15	.11	-.02	-.04	-.13	-.02	-.07	-.00
Positive	-.00	.01	.16	-.05	-.07	.21	-.02	-.07	.05	-.19	-.18	-.07
Inconsistent	.13	.29***	-.09	.18	.22*	-.04	.10	.12	-.03	.28**	.28***	-.09
Poor	.19*	.16	-.01	.20	.15	-.20	.00	.24*	-.08	-.03	.15	-.11
MPIP/MIPC	-.31***	-.38***	.37***	-.22	-.25	.36*	-.38**	-.40***	.53***	-.33*	-.37**	.49**
R^2	.41***	.42***	.30***	.43***	.32***	.42***	.24**	.39***	.36***	.43***	.55***	.37***
ΔR^2	.06***	.09***	.08***	.02	.03	.05*	.08**	.09***	.16***	.08*	.05**	.09**

*$p < .05$, **$p < .01$, ***$p < .001$. *SES* = Socioeconomic Status, *FFMQ* = Five Facet Mindfulness Questionnaire (Mother report only), *Positive* =

Positive Parenting, *Inconsistent* = Inconsistent Discipline, *Poor* = Poor Supervision. *Parent-reported Traditional Parenting measures were used in MPIP models, while child-reported Traditional Parenting measures were used in MPIC models. ΔR² Reflects R² change with the final step addition of MPIP/MPIC.*

Discussion

I present the development and initial validation of new parallel inventories measuring parent (MPIP) and child (MPIC) perceptions of mindful parenting in UK mothers and their children aged between 11-16 years. MPIP/MPIC each consisted of 18 items establishing an overarching mindful parenting construct consisting of four dimensions, *Self-Regulation in Parenting*, *Acceptance and Compassion towards Child*, *Being in the Moment with Child*, and *Awareness of Child*, with satisfactory internal consistency as well as with convergent, concurrent, and predictive validity. Overall, the findings supported the newly developed parallel inventories to assess parent and child perspectives of mindful parenting with mothers and their children aged 11-16 years old.

The *Self-regulation in Parenting* subscale consists of items related to being (non)reactive during interaction/conflict with the child and aligns with the Emotional Non-reactivity/Self-regulation in the Parenting Relationship dimension of mindful parenting (de Bruin et al., 2014; Duncan et al., 2009). The *Acceptance and Compassion towards Child* subscale combines items on compassion and accepting the child in line with the Dutch-IMP's Compassion for the Child dimension (de Bruin, 2014). The *Being in the Moment with Child* subscale includes items related to (not) being 'here-and-now' during interaction with child, corresponding to the Listening with Full Attention dimension of mindful parenting (Duncan et al., 2009). Finally, the *Awareness of Child* subscale comprises items related to the ability to pay attention to and detect child's thoughts, feelings, and mood and aligns with the interpersonal aspects of the Acceptance and Emotional Awareness of Self and Child dimension of mindful parenting (Duncan et al., 2009). Note that the additional theoretical dimensions of acceptance and awareness of parents towards self (suggested by Duncan et al., 2009) constituted the intrapersonal aspect of mindful parenting and were not represented in the inventories as they require higher-order Theory of Mind abilities from children to

predict the mental states of their parents (Westby & Robinson, 2014). Therefore, these inventories were developed to assess the interpersonal aspects of mindful parenting, which are found to be distinct from the intrapersonal aspects of mindful parenting (e.g., de Bruin et al., 2014).

I anticipated small-to-moderate correlations between MPIP and MPIC based on parent-child agreement commonly found in the traditional parenting literature (Cohen & Rice, 1997; Korelitz & Garber, 2016). In contrast, I found moderate-to-high mother-child agreement on mindful parenting totals and subscales using MPIP/MPIC. One possible explanation for this is that parents and children with more open communication in their relationships were more likely to participate together, as in all studies involving parent-child dyads (Havermans et al., 2015), resulting in a higher agreement in mindful parenting. However, it is also possible that this more open communication reflects higher levels of mindful parenting in participating families (Park et al., 2020; Lippold et al., 2015). To the extent that this is the case, the greater agreement between mother and child may be because more mindful parents are better able to reflect on their mindful parenting. This speculation would be an interesting avenue to examine in future research. These findings may also be specific to the UK context since individuals have less tendency to greater levels of social-desirability bias in their self-reports in less collectivistic cultures (Bernardi, 2006; Bornstein et al., 2015), which in turn may result in a greater agreement between mothers and their children. The level of agreement may also explain the current study's observation that mother-reported mindful parenting was a strong predictor of children's subjective experiences of adjustment as child-reported mindful parenting. I emphasise that the current study is introductory and offers only preliminary evidence of MPIP/MPIC in a UK sample; thus, I encourage the use of MPIP/MPIC across cultural contexts.

The significant correlations between MPIP/MPIC and traditional parenting dimensions, maternal dispositional mindfulness, child behaviours as well as maternal distress, with a few exceptions, provided convergent and concurrent validity for MPIP/MPIC. Moreover, I found empirical evidence for predictive validity for new inventories, showing that mindful parenting is a significant predictor of child behaviours after accounting for traditional parenting dimensions and maternal dispositional mindfulness.

Small-to-moderate correlations between MPIP/MPIC and various aspects of traditional parenting suggest mindful parenting to be a distinct parenting construct. I consider the small correlations between mindful parenting and poor supervision to be particularly important since it may reflect that monitoring and controlling the child is not a key component of mindful parenting, unlike traditional parenting constructs (e.g., Baumrind, 1966; Maccoby & Martin, 1983). Moreover, the new scales significantly predicted child behaviours above and beyond traditional parenting, whilst traditional parenting generally failed to contribute uniquely to child behaviours, except for inconsistent discipline. Despite previous evidence of associations between positive parenting and supervision with youth psychopathology (Elgar et al., 2007), in the current study, those constructs were barely associated with children's behaviours after accounting for mindful parenting. This suggests that mindful parenting goes beyond the mainstream definitions of parenting and that, particularly in a community sample like mine, mindful parenting might be of key importance for children's outcomes. Whether mindful parenting is more important than traditional parenting practices, as suggested here, necessitates further research with MPIP/MPIC and more detailed traditional parenting measures.

Associations between maternal dispositional mindfulness and MPIP/MPIC found here supported mindfulness as the foundation of mindful parenting. In line with

the previous studies, however, these associations were small-to-moderate, suggesting

that intrapersonal and interpersonal mindfulness may be related but distinct constructs

(McCaffrey et al., 2017; Pratscher et al., 2019). Mindful parenting was also shown to

account for a greater proportion of the variance in child- and mother-reported child

behaviours than maternal dispositional mindfulness. Therefore, as foreshadowed above

and supported elsewhere (Duncan, 2007), I suggest that assessing parents' intrapersonal

mindfulness ability is necessary but insufficient in the context of the parent-child

relationship to explain child outcomes. However, other colleagues have reported that

dispositional mindfulness may be more strongly associated with child outcomes than

mindful parenting, arguing that parental dispositional mindfulness is more critical for

children's outcomes (Orue et al., 2020). This inconsistency of the literature may be due

to differences in samples or measurement, and the promise of MPIP/MPIC

demonstrated here suggests that further research considering parent and child

perspectives may be fruitful in considering these questions.

Furthermore, mindful parenting showed strong negative correlations with

maternal depression and stress, although its association with maternal anxiety was

weaker. These findings are consistent with the literature reporting mixed results

regarding the association of mindful parenting with anxiety in contrast to that with

depression and stress (Corthorn & Milicic, 2016), implying that anxiety may not be as

critical a determinant of mindful parenting as depression and stress. Alternatively, it

may imply that experiencing mindful parenting serves to reduce mothers' depression

and stress but does not improve their anxiety—investigation of the direction or the

reciprocity of these relationships warrants future study.

A key strength of the current study is to provide the first scales that enable a

direct comparison of parent and child perceptions of mindful parenting using measures

appropriately validated for both parent and child use. Importantly, this study tested

measurement invariance between mother and child reports of mindful parenting that is often ignored despite its importance in family research (Havermans et al., 2015). As such, these new inventories have the potential to not only decrease measurement error but also pave the way for crucial investigations to understand whether discrepancies in parent and child perspectives on mindful parenting reflect more than an error (Havermans et al., 2015; Korelitz & Garber, 2016). I provided initial evidence for convergent, concurrent, and predictive validity using cross-reporter as well as within-reporter associations to reduce same-reporter bias (Burk & Laursen, 2010). Thus, I believe the MPIC has the potential to transform research commonly confounded by parent-report bias. I also believe MPIP/MPIC has important implications for mindful parenting intervention, allowing practitioners to test whether any improvement in mindful parenting after the intervention is also perceived by children and compare parents' and children's perspectives in terms of the effect of the intervention.

Limitations and Future Directions

Despite the strengths of the current work, its limitations should be noted. First, the current samples consisted of mothers only and were relatively small and unbalanced. Second, although I used multiple informants -- i.e., both mother and child reports of parenting and child behaviours, the data were based on self-report measures within the same survey, potentially affected by common-method bias. As discussed further in General Discussion (*see* Chapter 8), future studies are warranted to increase generalisability and statistical power and reduce common-method bias. Third, I used nested data (mother and their child) to confirm the similarity of the structure of MPIP/MPIC in the same family (Adamsons & Buehler, 2007); however, further research on the structure of MPIP/MPIC in different samples is encouraged. Finally, the current sample consisted of predominantly educated mothers to at least a degree level, and almost 85% self-identified as "white/white British". Although the results showed no

significant correlations between SES and MPIP/MPIC total scores, this may be due to the sample providing a small variance for education level, and I suggest caution in generalising the results. Relatedly, since parenting and the effect of a particular parenting approach on child outcomes may vary across cultures (*see* Bornstein, 2012), a cross-cultural examination of MPIP/MPIC is another suggested avenue for research. Thus, the following study aimed to adapt MPIP/MPIC into Turkish to facilitate cross-cultural research in mindful parenting.

Chapter 5

Turkish Adaptation of the Mindful Parenting Inventories for Parents and

Children

Introduction

There is a growing body of research that recognises the importance of mindful parenting for child behavioural development both in Western (e.g., Parent et al., 2016b) and Eastern cultures (e.g., Wang et al., 2018a). Despite this extensive literature, there are only a few studies of mindful parenting in Türkiye, in part because of the scarcity of available mindful parenting scales in Turkish. To my best knowledge, the only mindful parenting scale available in Turkish is the Mindfulness in Parenting Questionnaire (MIPQ; Gördesli et al., 2018; McCaffrey et al., 2017). However, MIPQ is limited as it targets parents of a wide age range of children (2-16 years), although parenting may vary across developmental stages (Darling & Steinberg, 1993). Further, the MIPQ has not been developed to assess children's perceptions of mindful parenting. Thus, as is found in the mindful parenting research in other countries, existing studies in Türkiye commonly consider only parent perceptions of mindful parenting, neglecting those of the child. I aimed to fill this gap by adapting the parallel Mindful Parenting Inventories for Parents and Children (MPIP/MPIC; *see* Chapter 4) for use in Türkiye.

In the traditional parenting literature, although many similarities are seen, evidence suggests that aspects of parenting and challenges faced in parenting can differ by cultural values and norms (for review, *see* Lansford, 2022), as can their associations with child outcomes (for meta-analysis, *see* Pinquart & Kauser, 2018; Pinquart, 2021). Unlike traditional parenting constructs, however, a common assumption is that culture has little or no influence on mindful parenting, as the concept of mindfulness itself is claimed to be universal (Kabat-Zinn, 2005). Indeed, some studies have reported no significant differences in mindful parenting between minority and majority groups living in the same country (Henrichs et al., 2021; Parent et al., 2016a, 2016b,2021; Park et al., 2020) although the literature is limited. In addition, associations between mindful parenting and parent-child conflict and child behaviours have been suggested to be

comparable between "white" and "people of colour" (Park et al., 2020) and between Western and Eastern cultures (e.g., Han et al., 2021). However, as revealed in Chapter 3, studies have shown that the factor structure of existing mindful parenting scales varies substantially across cultures, which may result from cultural differences in the phenomenon itself or semantic differences across translations (e.g., Kim et al., 2019). Importantly, little consideration has been given to mindful parenting in autonomous-relational cultures such as Türkiye; therefore, we lack knowledge about potential cultural differences in such cultures located between Western and Eastern cultures.

Current Study

It is essential to have a valid measure of mindful parenting in Turkish culture and, thus, to disseminate mindful parenting studies in Türkiye for four main reasons: (1) to enhance the overall understanding of mindful parenting by exploring its cultural variations and similarities in Türkiye; (2) to overcome Türkiye-specific challenges, if any, in mindful parenting, in turn, promoting children's adjustment; (3) to explore the culture-specific association between mindful parenting and child adjustment; and (4) through all of these, to ensure culturally compatible and effective mindful parenting interventions to promote parental well-being and child adjustment.

Thus, the current study aimed to examine the utility and validity of MPIP/MPIC in Türkiye. Specifically, I aimed to (1) appropriately translate the parallel MPIP/MPIC into Turkish and confirm whether their structure is maintained in Türkiye, (2) test the measurement invariance of the inventories between mothers and their children, and (3) evaluate the validity of these new instruments by testing associations with maternal dispositional mindfulness, parenting practices and child behaviours. I expected the factor structure to be invariant across reporters, with small-to-moderate correlations (H1). I hypothesised MPIP/MPIC to be positively correlated with mothers' dispositional mindfulness and positive parenting but negatively correlated with inconsistent discipline

and poor parental supervision (H2; convergent validity). I also hypothesised that there would be positive correlations between MPIP/MPIC and child prosocial behaviours and negative correlations between MPIP/MPIC and child problem behaviours (H3; concurrent validity). Additionally, I anticipated that MPIP/MPIC would predict child behaviours over and above traditional parenting practices (H4; predictive validity). Finally, I established the measurement invariance of MPIP/MPIC across the UK- and Türkiye-based mothers and their children to ensure reliable cross-cultural comparisons in the subsequent studies.

Method

Participants

Five out of 231 Türkiye-based mothers who met the eligibility criteria were excluded from the current study as they completed less than eighty per cent of the study questionnaire. Thus, 226 mothers between 29 and 58 years old (M = 42.31 years; SD = 5.29) composed the mother sample. Most mothers reported their marital status as married or cohabiting (n = 197, 87.2%), and they had between one and eight children (M = 1.98; SD = 0.87). Their target children's age ranged from 11 to 16 years old (M = 13.19, SD = 1.65), and 53.5% of these children were girls (n = 121). Mothers were mostly highly educated (.4% no formal education, 32.8% basic or secondary school degree, 16.4% vocational school of higher education degree, 40.7% bachelor's degree, 9.7% graduate or postgraduate degree). The mean score of subjective SES was 6.52 (SD = 1.70; ranged 2-10) on the MacArthur ladder (Adler et al., 2000; Şahin & Nasır, 2019), a higher-than-average subjective SES for this population (Mean > 5.8; Mode = 7; Işık et al., 2019). One-hundred-and-fifty-four children (M = 13.09 years, SD = 1.64 years; 84 girls (54.5%)) assented to participate in the study (68.1%).

Binary logistic regression analysis was used to examine whether children's participation was predicted by sociodemographic variables (child sex, child and mother

age, number of children mothers had, and SES) and our primary construct variables (mother-reported mindful parenting, dispositional mindfulness, positive parenting, children's internalising, externalising, and prosocial behaviours). Results showed significant differences between mothers whose children did and did not complete the questionnaires ($\chi^2 = 24.222$, $df = 12$; Cox-Snell $R^2 = .103$, $p = .017$). Specifically, increased child participation was associated with higher subjective SES reported by mothers ($B = 0.30$, $SE = 0.10$, $p = .004$), whereas lower child participation was associated with higher levels of child externalising behaviours ($B = -1.43$, $SE = 0.52$, $p = .006$).

Measures

Mothers reported their sociodemographics using the Demographic Information Form. The Turkish version of the 18-item MPIP/MPIC was used to assess mothers' and children's perceptions of mindful parenting. The total score of the Turkish version of the 15-item Five Facet Mindfulness Questionnaire (FFMQ; Kınay, 2013) was used to assess mothers' dispositional mindfulness (Cronbach's $\alpha = .71$). The Turkish version of the Alabama Parenting Questionnaire (APQ; Çekiç et al., 2018) was used to assess mothers' and children's perceptions of parenting practices in three dimensions. In the Türkiye-based samples, Positive Parenting demonstrated adequate Cronbach's alpha coefficients for mothers (Cronbach's $\alpha = .63$) and children (Cronbach's $\alpha = .82$). However, both mother- and child-reported Inconsistent Discipline (Cronbach's $\alpha = .41$ and .55, respectively) and Poor Supervision (Cronbach's $\alpha = .34$ and .30, respectively) showed poor Cronbach's alpha coefficients. Here forward, I thus used only the *Positive Parenting* subscale due to the poor reliability of the other subscales. Mother- and child-report versions of the Turkish Strengths and Difficulties Questionnaire (SDQ; Yalin et al., 2013) were used to measure child's internalising (Cronbach's $\alpha = .71$ and .77, respectively), externalising (Cronbach's $\alpha = .77$ and .68, respectively) and prosocial

behaviours (Cronbach's α = .71 and .67, respectively). A detailed description of the measures is given in Chapter 2.

Data Preparation and Analyses

Little's Missing Completely at Random test showed the missing values were completely at random across mothers' (χ^2 = 924.329, df = 885, p = .174) and children's questionnaires (χ^2 = 172.706, df = 146, p = .065), with no items with 5% or more missing data. Thus, I imputed missing data in continuous variables using the expectation maximisation method (Tabachnick & Fidell, 2007).

First, Confirmatory Factor Analyses (CFA) were performed to validate the factor structure of the Turkish version of the MPIP (n = 226) and MPIC (n = 154) separately. Then, three Multiple-group CFA using the dyadic samples only were used to test the configural, metric and scalar invariance of the new inventories (1) between the reporters within the culture (Türkiye-based mothers and their children), (2) between the UK- and Türkiye-based mothers and (3) between UK- and Türkiye-based children. If the CFI does not deteriorate by more than -.005, supported by a change of $\leq$ .010 in RMSEA --or insignificant χ^2 deterioration (p > .05)-- in the metric model compared to the configural model and in the scalar model compared to the metric model, then the scale meets the criteria for metric and scalar invariance, respectively (Chen, 2007).

In both mother and child samples, the Positive Parenting (skewness = -1.72/-1.18, kurtosis = 4.73/1.37, respectively) subscale of APQ deviated from the normal distribution and log 10 transformation carried out to render normality before analyses. Pearson correlations were then used to assess the agreement on mindful parenting (cross-reporter associations between the MPIP and MPIC), convergent (associations of MPIP/MPIC with FFMQ and APQ positive parenting) and concurrent validity (associations between MPIP/MPIC and SDQ dimensions). Predictive validity was tested by conducting a series of hierarchical regression analyses where sociodemographic

correlates, maternal dispositional mindfulness (FFMQ) and the traditional positive parenting dimension (from the APQ) were accounted for to predict child behaviours (SDQ) from MPIP/MPIC.

Results

Preliminary Analyses

Mother age was related to total MPIP ($r = .15$, $p = .024$) and to the subscales of *Self-Regulation in Parenting* ($r = .16$, $p = .014$) and *Being in the Moment with Child* ($r = .18$, $p = .006$). Additionally, *Being in the Moment with Child* showed a weak correlation with child sex ($r = .13$, $p = .048$; 1 = girl, 2 = boy) and perceived SES ($r = .15$, $p = .026$). None of these demographic variables was significantly related to child reports of mindful parenting.

Structural Analysis

First, I conducted a CFA for 226 mothers and found the initial model poorly fitted to the data (*see* Table 5.1). However, allowing the error covariances between items 1 and 6 (.30), between items 9 and 19 (.34) and between items 13 and 25 (.22), the model confirmed the four-factor model of Turkish MPIP. Then, two CFA analyses were conducted for dyadic mother and child samples (154 mothers and their children) to establish the baseline model for each group before multiple-group CFA. CFA showed that initial models had a poor fit to both mothers' and children's data. Consulting modification indices, I allowed error covariances between items 1 and 6 (.35) for MPIP, as well as between items 13 and 25 (.45) for MPIC. The resulting models showed acceptable fit indices for mothers and children (*see* Table 5.1).

Table 5.1 Confirmatory factor analyses for Mindful Parenting Inventory for Parents (MPIP) and Children (MPIC)

Model	χ^2	df	χ^2/df	CFI	RMSEA [90% CI]	SRMR
MPIP (*n* = 226)						
Initial Model	287.232	129	2.227	.863	.074 [.062, .085]	.073
Modified Model[a]	238.489	126	1.893	.903	.063 [.051, .075]	.066
MPIP (*n* = 154)						
Initial Model	237.177	129	1.839	.881	.074 [.059, .089]	.074
Modified Model[b]	217.822	128	1.702	.902	.068 [.052, .083]	.071
MPIC (*n* = 154)						
Initial Model	228.084	129	1.768	.893	.071 [.056, .086]	.071
Modified Model[c]	202.912	128	1.585	.919	.062 [.045, .078]	.067

Note. χ^2 = *chi-square,* df = *degrees of freedom*; CFI = *comparative fit index*; RMSEA = *root-mean-square error of approximation*; CI = *confidence interval*; SRMR = *standardised root-mean-square residual.*

[a]*allowing error covariances between items 1 and 6 (.30), between items 9 and 19 (.34) and between items 13 and 25 (.22).*

[b]*allowing error covariances between items 1 and 6 (.35).*

[c]*allowing error covariances between items 13 and 25 (.45).*

The hypothesis regarding measurement invariance across mothers and children (H1) was partially supported. As shown in Table 5.2, multiple-group CFA demonstrated that the unconstrained nested model (with the error covariances between items 1 and 6 and between items 13 and 25) had good fit indices, supporting configural invariance. The metric model with constrained factor loading across groups, however, slightly worsened compared to the configural model. Allowing the factor loading of Item 15 ("I am patient with my child/My mother is patient with me") to be variant across groups, partial metric invariance across the groups was obtained. Compared to the partial metric model, the model fit was worse in the scalar model, implying that not all item intercepts were invariant between the mothers and their children. Making sure that at least half of the items in a factor were restricted to be equal, I released five more intercepts (Items 2, 6, 9, 19, and 22) in a backward approach until the model showed partial scalar invariance (Putnick & Bornstein, 2016). The factor loadings obtained in the partially invariant MPIP/MPIC are presented in Figure 5.1.

Table 5.2 Measurement invariance test across mothers and their children

$n = 154$	χ^2	df	χ^2/df	CFI	RMSEA [90%CI]	SRMR	Comparison	$\Delta\chi^2$	Δdf	ΔCFI	ΔRMSEA
1. Configural invariance	408.505	254	1.608	.916	.045 [.036, .052]	.071	-	-	-	-	-
2. Metric invariance	433.364	268	1.617	.910	.045 [.037, .053]	.072	2 vs. 1	24.859*	14	-.006	.000
3. Partial Metric invariance	427.156	267	1.600	.913	.044 [.036, .052]	.071	3 vs. 2	18.651^{ns}	13	-.003	-.001
4. Scalar invariance	529.202	280	1.890	.864	.054 [.047, .061]	.076	4 vs. 3	102.046**	13	-.049	.010
5. Partial Scalar invariance	443.455	275	1.613	.908	.045 [.037, .052]	.072	5 vs. 4	16.299*	8	-.005	.001

Note. χ^2 = *chi-square,* df = *degrees of freedom*; CFI = *comparative fit index*; RMSEA = *root-mean-square error of approximation*; CI = *confidence interval*; SRMR = *standardised root-mean-square residual,* $\Delta\chi^2$ = χ^2 *change in the constrained model compared to the unconstrained model,* Δdf = *df change in the constrained model compared to the unconstrained model,* ΔCFI = *CFI change in the constrained model compared to the unconstrained model,* ΔRMSEA = *RMSEA change in the constrained model compared to the unconstrained model.*

$^*p < .01,$ $^{**}p < .001,$ ns = *non-significant*

Fig. 5.1 Factor loadings of Mindful Parenting Inventory for Parents (MPIP) and Children (MPIC) in the multiple-group confirmatory factor analysis (TR)
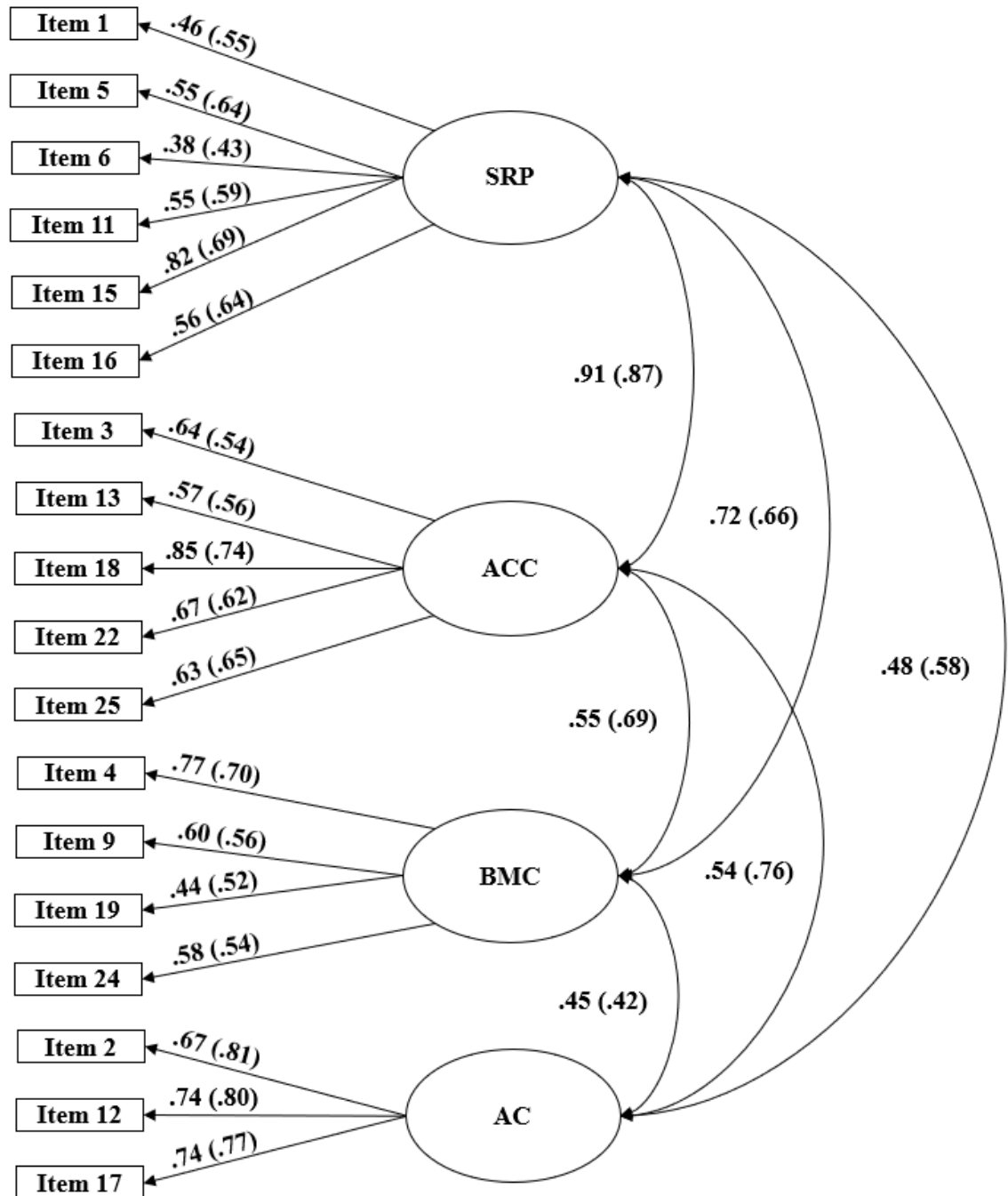
Mean differences were compared at the latent level since I only achieved partial invariance (Steinmetz, 2013). Results showed that mothers perceived themselves as more mindful in the Self-regulation in Parenting ($z = 2.304$, $p = .021$), Being in the Moment with Child ($z = 4.089$, $p < .001$) and Awareness of Child ($z = 4.447$, $p < .001$) aspects of mindful parenting than their children perceived them. In contrast, there were no latent mean differences between mothers and children in Acceptance and Compassion Towards Child ($z = 0.168$, $p = .866$). Descriptive statistics of MPIP/MPIC and their subscales, as well as within- and cross-reporter correlations of the subscales, are given in Table 5.3.

Table 5.3 Descriptive statistics, within-reporter correlations of Mindful Parenting Inventories for Parents (above the diagonal) and Children (below the diagonal) and cross-reporter correlations (on the diagonal, bolded)

	Mothers ($n = 226$)				Children ($n = 154$)				Correlations				
	Mean	SD	Skewness	Kurtosis	Mean	SD	Skewness	Kurtosis	MPIP (MPIC)	SRP	ACC	BMC	AC
MPIP/MPIC	3.83	0.51	-0.40	-0.22	3.65	0.69	-0.45	-0.34	**.39*****	.86***	.79***	.70***	.57***
SRP	3.41	0.68	-0.32	-0.14	3.28	0.82	-0.25	-0.56	.85***	**.36*****	.55***	.51***	.29***
ACC	4.00	0.65	-0.85	1.16	3.91	0.83	-0.85	0.44	.87***	.64***	**.34*****	.30***	.44***
BMC	4.03	0.71	-0.52	-0.31	3.83	0.85	-0.62	-0.28	.71***	.48***	.49***	**.42*****	.25***
AC	4.12	0.61	-0.77	1.06	3.73	0.99	-0.59	-0.51	.71***	.45***	.59***	.33***	**.25****

Note. MPIP = *Total scores of Mindful Parenting Inventory for Parents*, MPIC = *Total scores of Mindful Parenting Inventory for Children*,

MPIP/MPIC Subscales: SRP = *Self-Regulation in Parenting*, ACC = *Acceptance and Compassion towards Child*, BMC = *Being in the Moment with*

Child, AC = *Awareness of Child,* SD = *Standard Deviation.*

**p < .01, ***p < .001

Reliability

Acceptable internal consistency was demonstrated by Cronbach's alpha coefficients for MPIP/MPIC total scores (Cronbach's α = .86 and .88, respectively), as well as the subscales of the MPIP (Self-Regulation in Parenting, Acceptance and Compassion towards Child, Being in the Moment with Child and Awareness of Child dimensions (Cronbach's α = .73, .79, .70, and .74 respectively), and MPIC (Cronbach's α = .76, .78, .66 and .83, respectively).

Validity

The hypothesis regarding convergent (H2) and concurrent validity (H3) were partially supported. As given in Table 5.4, indicating convergent validity, MPIP total score was positively moderately correlated with mother-reported ($r = .35, p < .001$) and child-reported positive parenting ($r = .28, p < .001$) as well as mothers' dispositional mindfulness ($r = .42, p < .001$). MPIC was strongly positively associated with child-reported positive parenting ($r = .62, p < .001$) but not significantly associated with mother-reported positive parenting ($p = .050$) or dispositional mindfulness ($p = .115$).

Supporting concurrent validity, all within-reporter correlations between MPIP total score and child behaviours were significant in expected directions with small to moderate effect sizes (*see* Table 5.4). Namely, MPIP was negatively related to mother-reported internalising ($r = -.26, p < .001$) and externalising behaviours ($r = -.36, p < .001$) and positively related to prosocial behaviours ($r = .20, p = .002$). MPIC was similarly negatively correlated with child-reported internalising ($r = -.36, p < .001$) and externalising behaviours ($r = -.35, p < .001$) and positively correlated with prosocial behaviours ($r = .21, p = .010$). Regarding cross-reporter correlations, MPIP was significantly associated with child-reported externalising ($r = -.22, p = .005$) and prosocial behaviours ($r = .18, p = .027$), but not child-reported internalising behaviours ($p = .717$), whereas MPIC was only significantly associated with mother-reported

internalising behaviours ($r = -.19$, $p = .018$), but not externalising ($p = .090$) or

prosocial ($p = .135$) behaviours. All within- and cross-reporter correlates of

MPIP/MPIC subscales, including subscales, are given in Table 5.4.

Table 5.4 Correlations of Mindful Parenting Inventories for Parents and Children with maternal dispositional mindfulness, positive parenting, and child behaviours

	Mother Reports					Child Reports			
	FFMQ	Positive Parenting	Internalising	Externalising	Prosocial	Positive Parenting	Internalising	Externalising	Prosocial
Mother Reports									
MPIP	.42***	.35***	-.26***	-.36***	.20***	.28***	-.03	-.22**	.18*
SRP	.36***	.19**	-.26***	-.37***	.12	.19*	-.01	-.18*	.15
ACC	.30***	.39***	-.09	-.27***	.22***	.29***	.02	-.21*	.20**
BMC	.40***	.22**	-.32***	-.25***	.09	.16	-.15	-.13	.09
AC	.14*	.31***	-.09	-.08	.20**	.23**	.06	-.16*	.09
Child Reports									
MPIC	.13	-.16	-.19*	-.14	.12	.62***	-.36***	-.35***	.21*
SRP	.11	.08	-.12	-.14	.09	.43***	-.29***	-.35***	.07
ACC	.13	.20*	-.18*	-.14	.07	.62***	-.28***	-.31***	.28***
BMC	.11	.14	-.18*	-.08	.10	.44***	-.33***	-.29***	.10
AC	.04	.08	-.13	-.06	.14	.49***	-.23**	-.14	.24**

Note. $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$. MPIP = *Total scores of Mindful Parenting Inventory for Parents*, MPIC = *Total scores of Mindful Parenting Inventory for Children*, MPIP/MPIC Subscales: SRP = *Self-Regulation in Parenting*, ACC = *Acceptance and Compassion towards Child*, BMC = *Being in the Moment with Child*, AC = *Awareness of Child*, FFMQ = *Five Facet Mindfulness Questionnaire.*

To examine the predictive validity of the Turkish MPIP/MPIC (H4), I tested their prediction of child behaviours over and above sociodemographics, maternal dispositional mindfulness and traditional positive parenting practices using hierarchical regression analysis. There were significant correlations between mother-reported internalising behaviours and SES ($r = -.18$, $p = .006$) and between mother-reported externalising behaviours and child sex ($r = .16$, $p = .015$; 1 = girl, 2 = boy) in the mother sample. Small significant correlations were also found between mother-reported internalising behaviours and SES ($r = -.22$, $p = .005$); mother-reported externalising behaviours and child sex ($r = .21$, $p = .011$; 1 = girl, 2 = boy); mother-reported prosocial behaviours and mother age ($r = .19$, $p = .021$); and child-reported internalising behaviours and child age ($r = .23$, $p = .005$) in the dyadic sample. Sociodemographic variables related to child behaviours were included in hierarchical regression models.

Within-reporter models (*see* Table 5.4) showed that MPIP added small but significant variance in mother-reported child internalising ($\Delta R^2 = .02$, $\Delta F(1, 218) = 6.14$, $p = .014$) and externalising behaviours ($\Delta R^2 = .05$, $\Delta F(1, 218) = 13.38$, $p < .001$) after accounting for sociodemographics, mothers' dispositional mindfulness and positive parenting. Similarly, MPIC also explained additional variance in child-reported internalising ($\Delta R^2 = .09$, $\Delta F(1, 146) = 15.95$, $p < .001$) and externalising behaviours ($\Delta R^2 = .05$, $\Delta F(1, 147) = 9.10$, $p = .003$). Accordingly, MPIP negatively predicted both mother-reported internalising ($\beta = -.18$, $t = -2.48$, $p = .014$) and externalising behaviours ($\beta = -.25$, $t = -3.66$, $p < .001$). MPIC negatively predicted child-reported internalising ($\beta = -.39$, $t = -3.99$, $p < .001$) and externalising behaviours ($\beta = -.30$, $t = -3.02$, $p = .003$). In analogous conservative cross-reporter regression models (*see* Table 5.5), neither MPIP nor MPIC explained additional variance in child behaviours, except for MPIP significantly explaining additional variance in child-reported externalising behaviours ($\Delta R^2 = .03$, $\Delta F(1, 146) = 5.13$, $\beta = -.19$, $t = -2.27$, $p = .025$).

Table 5.5 Within-reporter hierarchical regression analyses predicting child behaviours from mindful parenting reported by mothers (MPIP) and children (MPIC), with dispositional mindfulness, positive parenting, and sociodemographic correlates

	MPIP Models ($n = 226$)						MPIC Models ($n = 154$)					
	Mother-reported child behaviours						Child self-reported behaviours					
DVs	Internalising		Externalising		Prosocial		Internalising		Externalising		Prosocial	
IVs	β	SE	β	SE	β	SE	β	SE	β	SE	β	SE
Mother age	-.03	.01	.07	.01	.10	.01	-.02	.01	.05	.01	.15	.01
Child sex	-.07	.04	.18**	.04	.01	.05	-.01	.06	.06	.05	-.09	.06
Child age	.10	.01	-.07	.01	-.07	.02	.20*	.02	.06	.02	-.13	.02
SES	-.10	.01	-.06	.01	-.05	.02	-.04	.02	.08	.02	-.15	.02
FFMQ	-.22**	.05	-.25***	.05	.12	.06	-.04	.07	-.08	.06	.08	.06
Positive	.05	.16	-.03	.16	.02	.19	.08	.22	-.07	.18	.18	.21
MPIP/MPIC	-.18*	.05	-.25***	.05	.12	.06	-.39***	.06	-.30**	.05	.07	.05
R^2	.15***		.22***		.07*		.17***		.15***		.12**	
ΔR^2	.02*		.05***		.01		.09***		.05**		.00	

Note. *p < .05, **p < .01, ***p < .001. FFMQ = *Five Facet Mindfulness Questionnaire (Mother report only)*, Positive = APQ *Positive Parenting; ΔR²* *reflects R² change with the final step addition of MPIP/MPIC.*

Table 5.5 *Cross-reporter Hierarchical Regression Analyses Predicting Child Behaviours from Mindful Parenting Reported by Mothers (MPIP) and Children (MPIC), with Dispositional Mindfulness and Positive Parenting and Sociodemographic Correlates*

DVs	MPIP Models ($n = 154$)						MPIC Models ($n = 154$)					
	Child self-reported behaviours						Mother-reported child behaviours					
	Internalising		Externalising		Prosocial		Internalising		Externalising		Prosocial	
IVs	β	SE	β	SE	β	SE	β	SE	β	SE	β	SE
Mother age	-.02	.01	.08	.01	.12	.01	-.08	.01	.09	.01	.21	.01
Child sex	-.02	.07	.08	.06	-.12	.06	-.06	.06	.21*	.05	.04	.06
Child age	.22*	.02	.09	.02	-.15	.02	.09	.02	-.03	.02	-.10	.02
SES	-.02	.02	.06	.02	-.12	.02	-.12	.02	-.05	.02	-.15	.02
FFMQ	-.08	.08	-.01	.06	.03	.07	-.20*	.06	-.31***	.05	.24**	.06
Positive	.03	.24	-.08	.20	.10	.22	-.02	.20	-.13	.17	-.06	.21
MPIC/MPIP	-.01	.07	-.21*	.06	.13	.07	-.14	.05	-.02	.05	.12	.05
R^2	.06		.09*		.10*		.14**		.18***		.12**	
ΔR^2	.00		.03*		.01		.02		.05		.01	

Note. *$p < .05$, **$p < .01$, ***$p < .001$. FFMQ = *Five Facet Mindfulness Questionnaire (Mother report only)*, Positive = APQ *Positive Parenting; ΔR^2 reflects R^2 change with the final step addition of MPIP/MPIC.*

Cross-cultural Invariance

In the mother sample, the Multiple-group CFA demonstrated that the unconstrained model had reasonable fit indices, allowing error covariances between items 6 and 15, between items 1 and 15, and between items 1 and 6 (*see* Table 5.6). The unconstrained configural model showed an acceptable model fit. Non-significant change between the configural model and metric model supported full metric invariance across the groups, namely factor loadings were equal in the British and Turkish versions of MPIP. Compared to the metric model, however, the model fit was worse in the scalar model, implying that not all item intercepts were invariant between British and Turkish mothers. After releasing three item intercepts (Item 5, Item 17, and Item 22), the model showed partial scalar invariance (Byrne et al., 1989).

In the child sample, the unconstrained model showed acceptable fit indices acceptable model fit (*see* Table 5.6). Compared to the configural model, the model fit slightly decremented in the metric model, indicating factor loadings were noninvariant across the groups. After releasing one factor loading (Item 3), the model showed partial metric invariance. Again, compared to the partial metric model, the model fit worsened in the scalar model, implying that not all intercepts were fully invariant between the UK- and Türkiye-based child samples. Therefore, to establish partial scalar invariance (Byrne et al., 1989), I released intercepts of two more items (Item 15 and Item 17).

The latent mean comparison showed that Turkish mothers perceived themselves as more being in the moment with the child ($z = 4.393$, $p < .001$) and aware of the child ($z = 2.759$, $p = .006$) than British mothers did. Turkiye-based children similarly reported more maternal awareness ($z = 2.212$, $p = .027$) than their UK-based counterparts, although they reported less maternal acceptance and compassion ($z = -1.782$, $p = .038$).

Table 5.6 Measure invariance of Mindful Parenting Inventory for Parents (MPIP) and Children (MPIC) across the UK and Türkiye

Mothers	χ^2	df	χ^2/df	CFI	RMSEA [90%CI]	SRMR	Comparison	$\Delta\chi^2$	Δdf	ΔCFI	ΔRMSEA
1. Configural invariance	398.112	252	1.580	.904	.049 [.040, .058]	.078	-	-	-	-	-
2. Metric invariance	418.609	266	1.574	.900	.049 [.040, .057]	.080	2 vs. 1	20.497^{ns}	14	-.004	.001
4. Scalar invariance	466.736	280	1.667	.877	.052 [.044, .061]	.080	4 vs. 3	48.127**	14	-.023	.003
5. Partial Scalar invariance	435.525	277	1.572	.896	.049 [.040, .057]	.080	5 vs. 4	17.119	11	-.004	.000
Children											
1. Configural invariance	393.553	256	1.537	.917	.047 [.038, .056]	.074	-	-	-	-	-
2. Metric invariance	422.521	270	1.565	.907	.048 [.039, .057]	.082	2 vs. 1	28.968*	14	-.010	.001
3. Partial Metric invariance	410.567	269	1.526	.914	.047 [.037, .055]	.079	3 vs. 2	17.014	13	-.003	.000
4. Scalar invariance	457.154	282	1.621	.894	.051 [.042, .059]	.051	4 vs. 3	46.587**	13	-.020	.004
5. Partial Scalar invariance	430.753	280	1.538	.909	.047 [.038, .056]	.079	5 vs. 4	20.186*	11	-.003	.000

Note. n_{UK} = 90, n_{TTR} = 154. χ^2 = *chi-square,* df = *degrees of freedom*; CFI = *comparative fit index*; RMSEA = *root-mean-square error of approximation*; CI = *confidence interval*; SRMR = *standardised root-mean-square residual,* $\Delta\chi^2$ = χ^2 *change in the constrained model compared to the unconstrained model,* Δdf = *df change in the constrained model compared to the unconstrained model,* ΔCFI = *CFI change in the constrained model compared to the unconstrained model,* ΔRMSEA = *RMSEA change in the constrained model compared to the unconstrained model.*

**p* < .01, ***p* < .001, ns = *non-significant*

Discussion

Introducing to Türkiye parallel inventories to assess parent and child perspectives of mindful parenting, the main aim of the current study was to validate the 18-item MPIP/MPIC in a sample of Turkish mothers and their children. The four-dimensional structure of the inventories was supported, and evidence for (partial) invariance between MPIP and MPIC was provided, suggesting that aspects of mindful parenting were interpreted in largely the same way between mothers and their children (Putnick & Bornstein, 2016). The Turkish versions of MPIP/MPIC demonstrated good internal consistency, as well as convergent, concurrent, and predictive validity. Overall, the findings supported the inventories as valid and reliable for assessing mindful parenting perceptions of mothers and children aged 11-16 years living in Türkiye.

In this study, CFA for the four-factor MPIP/MPIC revealed acceptable fit indices as in the original development study conducted in the UK (Chapter 4). However, Item-15 ("I am patient with my child/My mother is patient with me") showed metric non-invariance between MPIP and MPIC, which implies that mothers and their children interpreted the item differently. Given the stronger factor loading of Item-15 on the Self-regulation in Parenting subscale in MPIP (.82) than MPIC (.69), this finding may indicate that "being patient with the child" is more salient to the construct for mothers (Campbell et al., 2008).

The Turkish version of MPIP/MPIC generally had good internal consistency for the total scale and its subscales, except for the *Being in the Moment with Child* subscale, for which these were a little low, in line with results found in the UK version, but still acceptable (Chapter 4). As hypothesised, there were small-to-moderate correlations between MPIP and MPIC. The low agreement between mothers and children in the Türkiye sample may offer some explanation of why mindful parenting failed to contribute to child adjustment in the cross-reporter regression model discussed below.

My hypotheses regarding the validity of MPIP/MPIC were partially supported. Albeit not surprising, within-reporter associations were more robust than cross-reporter associations. I found that mothers with higher mindful parenting skills generally used more positive parenting practices, indicating convergent validity. This is in line with the mindful parenting model (Duncan et al., 2009), as well as previous empirical findings (McKee et al., 2018; Parent et al., 2016b), including in the UK sample using MPIP/MPIC (Chapter 4).

The current study supports the convergent validity of the MPIP and its subscales through its association with maternal dispositional mindfulness is consistent with the UK scale development study (Chapter 4). However, results were rather different for the MPIC total and subscales which were not associated with mother reports of dispositional mindfulness, despite their small-to-moderate associations with mother reports of mindful parenting. I cautiously argue that these findings may support the idea that intra- and interpersonal mindfulness should be considered distinct constructs (Pratscher et al., 2019), especially in the parent-child interaction context (Duncan, 2007), since mothers' self-reported mindful parenting was associated with child-reported externalising problems, whilst mother reports of their own dispositional mindfulness were not.

Supporting concurrent and predictive validity, mindful parenting was correlated with child behaviours in expected directions, importantly predicting child internalising and externalising behaviours over and above dispositional mindfulness and positive parenting. Here again, mindful parenting was a better predictor in within-reporter models than in the cross-reporter models. In part, this is due to shared method variance, and the findings are in accord with previous research, showing mindful parenting and child outcomes to be significantly associated when parents reported on both variables (e.g., Cheung et al., 2021; Parent et al., 2016b), but not when multiple perspectives are

considered (e.g., Park et al., 2020; Wang et al., 2018a). Of arguably more interest are the instances where cross-rater associations were evident. For example, mothers' self-reported mindful parenting was associated with child-reported externalising problems but not with child-reported internalising behaviours. I acknowledge these findings presumably reflect common variance bias; I argue that it is also likely that these correlations are at least partly due to perspectives of experience that can relate strongly to subjective reports of behaviour (Youngstrom et al., 2000). Alternatively, given the potential bidirectional nature of the relationships between mindful parenting and child behaviours (e.g., Kim & Gonzales, 2021; Larrucea-Iruretagoyena & Orue, 2023), one might also argue that externalising behaviours affect mindful parenting more readily, as they are more explicit than internalising behaviours (Van der Meer et al., 2008).

MPIP/MPIC did not predict child prosocial behaviours. Interestingly, a recent study similarly showed the correlation between mindful parenting and prosocial behaviours to be somewhat lower than that between mindful parenting and problem behaviours (Cheung et al., 2021). This notion warrants further research since the mechanisms at play here are important to explore. On the one hand, one might assume mindful parenting to relate to mothers' own prosocial behaviours through common themes such as kindness, understanding and empathy in these constructs and thus to be related to children's prosociality through both environmental and genetic provision (Knafo & Plomin, 2006). On the other hand, mindful parenting may be more pertinent to children's problem behaviours than prosocial behaviours through emotion regulation skills pertinent to mindful parenting (Caiado et al., 2020) as well as to a lack of parental reactivity and harshness (Crandall et al., 2015). Alternatively, again, considering the reciprocal association between mindful parenting and child behaviours (e.g., Kim & Gonzales, 2021; Larrucea-Iruretagoyena & Orue, 2023), one might also argue more problem behaviours are detrimental to mindful parenting, while more prosocial

behaviours do not promote mindful parenting as they are more "typical" (Wang et al., 2018b).

Finally, Turkish mothers exhibited higher scores on the MPIP dimensions of *Being in the Moment with Child* and *Awareness of Child* compared to British mothers. However, when child reports were taken into account, this pattern was confirmed only for the dimension of *Awareness of Child*. This finding may imply that Turkish mothers are more inclined to engage with their children's thoughts and feelings, demonstrating sensitivity and responsiveness to their needs due to cultural differences in emotional socialisation (Çorapçi, et al., 2018). This result also shows the importance of incorporating multiple perspectives and cultures to understand mindful parenting comprehensively. However, I emphasised that replication is needed before conclusions are drawn from these findings. More research is needed to understand the source of differences in perspectives of mindful parenting between these – and other -- cultures. A continued focus on child reports as well as parent reports would be of particular interest, facilitated by these novel parallel inventories.

Previously I provided evidence of a promising tool for understanding both parent and child perspectives of mindful parenting in UK-based families. Now I evidence the utility of a version suitable for use in Türkiye, facilitating a better understanding of this pertinent family process in Turkish families. As such, MPIP/MPIC allows direct comparison of different perspectives on mindful parenting using dyadic parent-child data within and across these cultures in the following studies.

Limitations and Future Directions

Despite its strengths, I acknowledge the limitations. First, the homogeneity of the sample (mothers only; typically developing children; aged 11-16 years) means that further work is needed to generalise the findings to fathers and more diverse families (for further discussion, *see* Chapter 8). Relatedly, as in recent similar parenting research

in Türkiye (e.g., Arikan et al., 2020; Gördesli et al., 2018), the current mother sample was highly educated (50.4% with higher education degree) compared to Türkiye's women population over 25 (20.9% with higher education degree) (Turkish Statistical Institute, 2022). The lack of representativeness was evident, again warranting caution when generalising these findings to the broader population of mothers in Türkiye.

Second, the inconsistent discipline and poor supervision subscales of the APQ had poor internal reliability in this sample, perhaps due to interpretation differences reported elsewhere to be particularly problematic in samples of children, non-English speakers, and community samples (for a meta-analysis, *see* Liang et al., 2021). The APQ was chosen for brevity, but these reliability problems for the traditional parenting constructs I attempted to measure mean that our consideration of such constructs was limited. Future studies reliably assessing traditional parenting dimensions are crucial to take the current work forwards. Third, this study used a single method (self-reports) to collect data from multiple sources. Future studies should consider using other methods, such as independent observations, to reduce common-method bias (Podsakoff et al., 2012) (for further discussion, *see* Chapter 8).

Chapter 6

Determinants of Mindful Parenting: A Cross-Cultural Examination of Mother and Child Reports

Introduction

As highlighted throughout the thesis, it has become crucial to identify the sources of individual differences in mindful parenting. Here, building on the process of the parenting model (Belsky, 1984; Taraban & Shaw, 2018) and the process of the mindful parenting model (*see* Chapter 3), I suggested a model of the determinants of mindful parenting. I empirically tested the direct and indirect associations of parent characteristics (maternal psychological distress), child characteristics (negative emotionality), and family social environment (social support) with mindful parenting, exploring the moderating role of culture. Moreover, further extending previous literature, I included both children's and mothers' perspectives on mindful parenting.

Determinants of (Mindful) Parenting

As discussed in the introductory chapter, Belsky (1984) established a ground-breaking theoretical framework for explaining the determinants of parenting, positing that parenting is multiply determined by parent characteristics (e.g., personality/psychopathology), child characteristics (e.g., temperament) and family social environment (e.g., marital quality, social support). The current study focuses on the determinant roles of maternal psychological distress, child negative emotionality, and social support, as well as potential mechanistic pathways for mindful parenting.

Regarding direct effects on parenting, according to Belsky (1984), parental psychological well-being is central to the parenting process, in part directly influencing parenting. Indeed, empirical research has supported parental psychological distress (e.g., depression) as a parental risk factor for maladaptive fathering (for meta-analysis, *see* Cheung & Theule, 2019) and mothering (for meta-analysis, *see* Goodman et al., 2020b; Lovejoy et al., 2000). For mindful parenting, studies have revealed that parental psychological distress can also be undermining (e.g., Cheung et al., 2021; Corthorn &

Milicic, 2016; de Bruin et al., 2014; Fernandes et al., 2021; Henrichs et al., 2021). It is suggested that parental psychological distress threatens mindful parenting by impairing capabilities in essential features of mindful parenting, such as emotion regulation, awareness, and present-moment attention. For instance, parents with psychological distress may be less likely to self-regulate during parent-child interaction due to their impaired emotion regulation skills (Kerns et al., 2017; Lovejoy et al., 2000). In addition, parents with higher depressive symptoms may be less attuned and sensitive in their parenting interaction and, as such, be less able to notice emotions of themselves and those of their children (Coyne et al., 2007; Lovejoy et al., 2000) as well as being less aware of the impact of their behaviours on their children's emotions (Coyne et al., 2007).

According to Belsky's model, child characteristics, particularly child temperament, are also suggested to play an active role in the parenting process. Subsequent empirical research has supported this model, consistently showing that child negative emotionality -- an intensive and frequent expression of negative emotions by the child-- undermines parenting (for a meta-analysis, *see* Paulussen-Hoogeboom et al., 2007). Regarding the effect of child temperament on mindful parenting specifically, however, findings are more inconsistent. For example, infants' negative emotionality has been shown to have no cross-sectional (Gartstein, 2021) or longitudinal association (Henrichs et al., 2021) with parent-reported mindful parenting, while preschool children's "difficult" temperaments have been shown to have a negative impact on mindful parenting (Corthorn & Milicic, 2016; Lo et al., 2018) as have those in school-age (aged 6-13; Moreira et al., 2021). It is, therefore, possible that child temperament interacts with child age to predict mindful parenting. To my knowledge, there is no previous research examining the association of child temperament with mindful parenting in adolescents.

Social support is one of the salient environmental factors that may directly determine parenting behaviours (Belsky, 1984), and has repeatedly been shown to increase parental warmth (Lippold et al., 2018), sensitivity (Lee et al., 2020), and involvement (Hamme Peterson et al., 2010), as well as decrease parental hostility (Lippold et al., 2018) and over-reactivity (Taraban et al., 2019). I suggest that social support may also be crucial to mindful parenting as it helps parents regulate their emotional responses to their children (Marroquín, 2011). Indeed, Bögels and Restifo (2014) state that social support is an essential theme in their mindful parenting intervention. So far, however, only one study has empirically examined the relationship between social support and parent-reported mindful parenting, finding that parents who perceived more social support also reported more mindful parenting in a sample of kindergarteners and primary schoolers (Wang & Lo, 2020). Given this promising finding, it is warranted to assess the effect of social support on mindful parenting in adolescents as well.

Indirect Effects

As well as the direct effects of parenting determinants, a key theme for Belsky's model of the parenting process involves the indirect effects of these determinants via parental psychological well-being. For example, parental psychological distress is seen as a potential mechanism by which child negative emotionality affects parenting since parenting children with high negative emotionality is more stressful than parenting children with low negative emotionality (Mulsow et al., 2002). Similarly, emotional, instrumental, and informative support provided to parents by available social networks (e.g., spouses, family, friends, or professionals) may be a key determinant of parenting, posited to be mediated by parents' psychological well-being (Belsky, 1984). These mechanistic pathways for determinants of the traditional parenting model are supported by empirical research (negative emotionality: e.g., Laukkanen et al., 2014; Xing et al.,

2017; social support: e.g., Lippold et al., 2018; Östberg & Hagekull, 2000; Taylor et al., 2015), but are neglected for mindful parenting. I hypothesised similar mechanisms for mindful parenting.

Parenting in Context

Culture has been suggested to have a moderating role, altering the associations between determinants and parenting (Taraban & Shaw, 2018), although the research is scarce and inconclusive. For example, Japanese mothers have been shown to be more rejective than Korean mothers (Son et al., 2020), and Chinese immigrant mothers to be more non-supportive than European American mothers (Yang et al., 2020) while dealing with temperamentally "difficult" children. Similarly, school social support was related to less harsh parenting behaviours in Dominican-American but not Mexican American parents (Serrano-Villar et al., 2017). In contrast, no cultural differences were observed in the association between child temperament and parental psychological control between Chinese and Korean immigrant mothers, with "easier" child temperament associated with less psychological control in both cultures (Cheah et al., 2016). Likewise, the association of parental well-being with parental psychological control between Chinese and Korean immigrant mothers (Cheah et al., 2016), as well as the associations of family support with positive parenting between Mexican and Dominican Americans (Serrano-Villar et al., 2017) have been shown to be comparable, implying that personal and contextual sources are determinants of parenting regardless of culture. Taken together, what little cross-cultural research there is testing Taraban and Shaw's (2018) model on the determinants of traditional parenting model reveals inconsistent findings.

Cross-cultural studies of mindful parenting are even more limited, considering ethnic minorities within the same country and reporting comparable correlates of mindful parenting, yet are restricted in their power to consider the question (Park et al.,

2020). To my knowledge, no study has yet directly compared the mindful parenting process as moderated by culture. Addressing this gap, I tested whether culture interacts with social support, child temperament, and parental psychological distress to shape mindful parenting. Specifically, I was interested in comparing autonomous-relational (Türkiye) and autonomous (UK) cultures because these different cultural values have been considered one of the most influential factors in the parenting process (Bornstein, 2012). Due to the limited existing literature, the comparisons of determinants across cultures were exploratory only. As the concept of mindfulness itself is claimed to be universal (Kabat-Zinn, 2005), however, I expected the mindful parenting levels of mothers to be similar in both cultures.

Current Study

Overall, little is known about the determinants of mindful parenting. This may be partly due to the silent assumption that the determinants of mindful parenting are similar to those of other kinds of parenting behaviour (e.g., Baumrind, 1966; Parent & Forehand, 2017). Yet, I argue that this assumption should be tested empirically since mindful parenting behaviours are seen as distinct from the 'traditional models of parenting' (*see* Chapter 1). Moreover, to my best knowledge, no study has examined the determinants of children's perceptions of mindful parenting, although previous research on the traditional parenting models showed differences between the determinants of parent and child perceptions of parenting (Cheung & Theule, 2019; Gerdes et al., 2003; 2007). I aimed to fill this research gap, using multiple informants of mindful parenting (i.e., mothers and their children) to identify the determinants of mindful parenting. For two main reasons, assessing different perspectives on mindful parenting in this context is important. First, a multi-informant approach allows the examination of determinants of mindful parenting as perceived from both sides of the relationship. This affords a more complete picture of the mindful parenting process in families, accounting for the

subjectivity of experience (Boyce et al., 1998; Schaefer, 1965). Children's subjective experiences of parenting are robust predictors of child outcomes (Danese & Widom, 2020; Zhou et al., 2021), and identifying determinants of child-reported mindful parenting may improve our understanding. Second, a multi-informant approach may also increase the validity of the mindful parenting process model by minimising bias in self-report of parenting (Morsbach & Prinz, 2006; Schofield et al., 2016) and common-method variance where determinants are also parent-reported (Burk & Laursen, 2010). As such, simultaneously uncovering the determinants of mothers' and children's perceptions of mindful parenting is essential for understanding the full picture of the mindful parenting process in families.

As such, in the samples of UK and Türkiye mothers and children, I aimed to test the overall hypothesis that mindful parenting is multiply determined by parent characteristics (i.e., mothers' psychological distress), child characteristics (i.e., negative emotionality), and family social environment (i.e., social support) and that psychological distress would provide a mechanism through which determinants have influence. Specifically, I hypothesised that (H1) mothers' social support would directly and indirectly predict mindful parenting through maternal psychological distress, (H2) child negative emotionality would directly and indirectly predict mindful parenting through maternal psychological distress, and (H3) culture would play a moderating role in the process of mindful parenting. Moreover, I further expand the literature by exploring the determinants of both mother- and child-reported mindful parenting. The proposed process of the mindful parenting model is given in Figure 6.1.

Method

Participants

The sample was composed of 90 UK mother-child dyads [48 girls (53.3%), 41 boys (45.6%) (and one data missing)] and 151 Turkish mother-child dyads [82 girls (54.3%) and 69 boys (45.7%)]. The mean age of the target children was 13.09 years (SD = 1.66) in the UK and 13.20 years (SD = 1.64) in Türkiye. The mean age of UK mothers was 45.17 years (ranged 28 to 57; SD = 5.87), and of Turkish mothers was 42.79 years (ranged 29 to 53; SD = 5.01). UK mothers were significantly older than Türkiye mothers (t = 3.331, p < .001). Eighty-four-point-four per cent of UK mothers (n = 76) and 87.4% of Türkiye mothers (n = 132) reported their marital status as married or cohabiting. UK Mothers had between one and five children (M = 2.10; SD = 0.78), and Turkish mothers had between one and eight children (M = 1.97; SD = 0.93).

Mothers in both subsamples were well-educated; 83.3% of UK mothers (n = 75) and 67.5% of Turkish mothers (n = 102) hold an undergraduate or higher degree. UK mothers reported a mean score of 6.74 (SD = 1.80; ranged from 1-10) and Turkish mothers 6.75 (SD = 1.67; ranged from 2-10) on the MacArthur Scale of Subjective Social Status (Adler et al., 2000; Şahin & Nasır, 2019). There were no significant differences in perceived SES (t = -0.017, p = .986), child age (t = -0.501, p = .617) or the number of children mothers had (t = 1.083, p = .280) between cultures, and samples did not differ by child sex [$\chi^2(1)$ = 0.003, p = .955] or mothers' marital status [$\chi^2(1)$ = 0.422, p = .516].

Measures

Mothers reported their sociodemographics using the Demographic Information Form. The 18-item MPIP/MPIC was used to assess UK- and Türkiye-based mothers' and children's perceptions of mindful parenting. In both cultures, internal reliabilities were good (MPIP: α_{UK} = .90, α_{TR} = .88; MPIC α_{UK} = .92, α_{TR} = .89). Mothers'

psychological distress was measured using the total scores of the 21-item version of the Depression Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995; Sarıçam, 2018). DASS-21 had excellent internal reliability in the UK (α = .94) and Türkiye (α = .93). "Emotionality" Subscale of The Emotionality Activity Sociability Temperament Survey (EASTS; Buss & Plomin, 1984; Eyüpoğlu, 2006) was used to measure parent perceptions of child negative emotionality. The scale demonstrated good internal reliability in the UK (α = .90) and Türkiye (α = .79). The total score of the Multidimensional Scale of Perceived Social Support (MSPSS; Eker et al., 2001; Zimet et al., 1988) was used to evaluate mothers' perceptions of social support. Internal reliabilities were excellent both in the UK (α = .96) and Türkiye (α = .93).

Data Analysis

Data were missing completely at random in UK mothers [$\chi^2(175)$ = 181.660, p = .349] and Türkiye children [$\chi^2(28)$ = 37.052, p = .118]. There were no missing in UK children's and Türkiye mothers' data. The expectation maximisation method was used to handle mothers' missing data in continuous variables (Tabachnick & Fidell, 2007). I investigated relationships between variables using Pearson's correlations. Independent samples t-tests were used to assess mean level differences between the UK and Türkiye samples. I conducted a multiple-group path analysis (with Emulisrel correction) to test the hypothesised process of the mindful parenting model (*see* Fig. 6.1) and the invariance of the model across cultures (Byrne, 2016).

Chi-square change between unconstrained and constrained models was examined to test equivalence between UK and Türkiye models. Insignificant chi-square change between unconstrained and constrained models indicates noninvariant paths across cultures (Byrne, 1989; Kline, 2005). I also examined changes between the models in CFI and RMSEA using the cut-off criteria of -.005 and .010, respectively, recommended for invariance testing in small samples (Chen, 2007). In the case of

cultural inequivalence, I identified variant paths that needed to be freely estimated between groups by constraining only one path to be equal at a time. Finally, I analysed direct and indirect effects using 5000 bias-corrected bootstrapped samples with 95% confidence intervals.

Fig. 6.1 Proposed Path Model of the Mindful Parenting Process
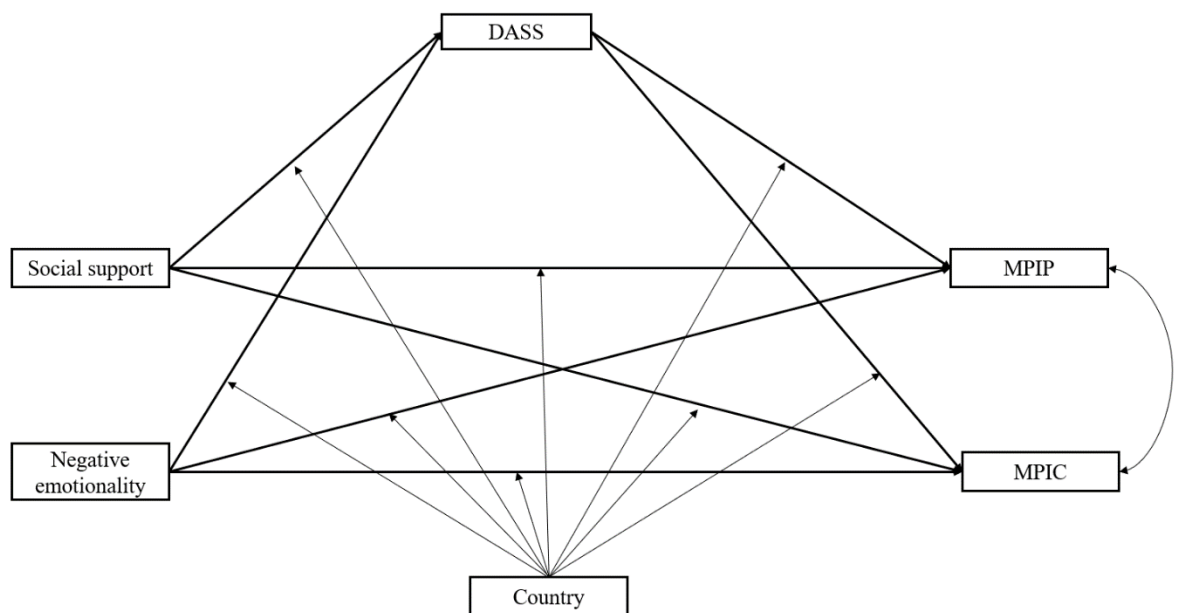
Results

Preliminary Results

Table 6.1 presents correlations, descriptive statistics, and group comparisons for all study variables. There were no mean differences between the UK and Türkiye samples in MPIP ($t = -1.576$, $p = .116$) or MPIC ($t = 0.216$, $p = .829$) total scores. A significant cultural mean difference between the UK and Türkiye was found only in child negative emotionality; Turkish mothers reported higher child negative emotionality than UK mothers ($t = -5.53^{***}$, $p < .001$). As given in Table 6.1, correlations within cultures were small to moderate in effect size and in expected directions. Paired samples t-test analysis showed that mothers reported higher mindful parenting than their children in Türkiye ($t = 2.743$, $p = .007$); there was no such difference between mothers and children in the UK ($t = 0.435$, $p = .664$).

In the UK, Pearson correlation analysis revealed that both mothers' and children's perceptions of mindful parenting were negatively associated with child negative emotionality ($r = -.38$, $p < .001$; $r = -.38$, $p < .001$, respectively) and with maternal psychological distress ($r = -.37$, $p < .001$; $r = -.27$, $p < .001$, respectively). In Türkiye, for both mother and child perceptions, mindful parenting was positively associated with maternal social support ($r = .20$, $p = .014$; $r = .18$, $p = .024$, respectively) and negatively associated with maternal psychological distress ($r = -.38$, $p < .001$; $r = -.27$, $p < .001$, respectively).

Table 6.1 Correlations and descriptive statistics of the study variables

	1	2	3	4	5	UK				TR				
						M	*SD*	Skew.	Kurt.	*M*	*SD*	Skew.	Kurt.	*t*
1. MPIP	-	.61***	.16	-.38***	-.37***	3.70	0.49	-0.00	-0.52	3.81	0.53	-0.40	-0.29	-1.576
2. MPIC	.39***	-	.16	-.38***	-.27*	3.67	0.69	-0.77	0.75	3.65	0.69	-0.45	-0.35	0.216
3. Social support	.20*	.18*	-	-.14	-.29**	5.66	1.28	-1.42	2.42	5.43	1.43	-0.92	0.02	1.232
4. Neg. Emo.	-.06	-.01	-.22**	-	.36***	2.01	0.93	1.17	0.95	2.67	0.89	0.61	-0.36	-5.529***
5. DASS	-.38***	-.27***	-.52***	.23**	-	0.66	0.57	0.95	0.15	0.74	0.49	1.18	2.02	-1.155

Note. Correlation coefficients displayed above the diagonal are for the United Kingdom (UK), below for Türkiye (TR)

MPIP = Mindful Parenting Inventory for Parents, *MPIC* = Mindful Parenting Inventory for Children, *Neg. Emo.* = Child

Negative Emotionality, *DASS* = Depression Anxiety Stress Scales, *M* = Mean, *SD* = Standard Deviation, *Skew.* = Skewness,

Kurt. = Kurtosis.

Multiple Group Path Analysis

Note that, in the following multiple-group path analysis, I allowed covariances between the error terms of the mother- and child-report mindful parenting because their correlations were high (*see* Table 6.1). The effect of marital status on MPIC was controlled in the model as their significant association in the Türkiye sample ($r = .18$, $p = .030$; 1 = married/cohabitating, 2 = single/divorced/widowed).

Total Effect Model

I tested the total effects of social support and child negative emotionality on MPIP and MPIC across cultures. The unconstrained nested model showed a good fit to the data [$\chi^2(2) = 0.212$, $\chi^2/df = 0.106$, CFI = 1.000, RMSEA = 0.000 [0.000, 0.056], SRMR = 0.005]. I then constrained all paths in the model to be equal across groups (i.e., cultures). Compared to the unconstrained model, the constrained model fit was worse in the constrained model [$\chi^2(7) = 11.049$, $\chi^2/df = 1.578$, CFI = 0.957, RMSEA = 0.049 [0.000, 0.102], SRMR = 0.076; $\Delta\chi^2(5) = 10.837$, $p = .055$, ΔCFI = -0.043]. CFI significantly reduced in the constrained model, showing that not all paths should be treated as equal. I found that the paths from child negative emotionality to both MPIP ($\Delta b = -0.18$, $p = .008$) and MPIC ($\Delta b = -0.29$, $p = .002$) were variant across cultures, as such, freely estimated those variant paths across groups [$\chi^2(5) = 1.276$, $\chi^2/df = 0.255$, CFI = 1.000, RMSEA = 0.000 [0.000, 0.021], SRMR = 0.021; $\Delta\chi^2(3) = 1.063$, $p = .79$, ΔCFI = 0.000]. As given in Table 6.2, the paths between social support and MPIP ($b = 0.06$, $p = .018$) and MPIC ($b = 0.07$, $p = .034$) were significant both in the UK and Türkiye (H1). However, the path between child negative emotionality and MPIP ($b_{UK} = -0.19$, $p = .001$; $b_{TR} = -0.02$, $p = .730$) and MPIC ($b_{UK} = -0.26$, $p < .001$; $b_{TR} = 0.02$, $p = .789$) were significant in the UK only (H2).

Direct and Indirect Effect Model

The unconstrained multiple group mediation path model in which social support and child negative emotionality predicted MPIP and MPIC through maternal psychological distress had a good model fit to the data [$\chi^2(4) = 2.297$, $\chi^2/df = 0.574$, CFI = 1.000, RMSEA = 0.000 [0.000, 0.075], SRMR = 0.011)]. I then constrained paths in the model to be equal across groups. Compared to the unconstrained model, the constrained model fit was worse in the constrained model [$\chi^2(13) = 17.225$, $\chi^2/df = 1.325$, CFI = 0.976, RMSEA = 0.037 [0.000, 0.079], SRMR = 0.079); $\Delta\chi^2(9) = 14.928$, $p = .09$, ΔCFI = -0.024]. As CFI significantly reduced in the constrained model, I concluded that not all paths should be treated as equal. Again, I found that the paths from child negative emotionality to both MPIP ($\Delta b = -0.16$, $p = .018$) and MPIC ($\Delta b = -0.28$, $p = .006$) were variant across cultures; as such, I freely estimated those variant paths across groups for the subsequent analysis [$\chi^2(11) = 9.708$, $\chi^2/df = 0.883$, CFI = 1.000, RMSEA = 0.000 [0.000, 0.062], SRMR = 0.045; $\Delta\chi^2(7) = 7.411$, $p = .387$, ΔCFI = 0.000]. Finally, I constrained the covariance between MPIP and MPIC to be equal across groups.

Contrary to my hypothesis (H1), social support was not directly associated with MPIP ($b = .02$, $p = .536$) or MPIC ($b = .04$, $p = .335$) in either the UK or Türkiye (*see* Table 6.2 and Fig. 6.2). However, as hypothesised (H1) social support indirectly predicted MPIP ($ab = .05$, $p < .001$) and MPIC ($ab = .04$, $p = .003$) through maternal psychological distress in both cultures. Partially supporting my hypothesis (H2), in the UK only, child negative emotionality directly predicted MPIP ($b_{UK} = -.12$, $p = .014$; $b_{TR} = .01$, $p = .863$) and MPIC ($b_{UK} = -.21$, $p = .004$; $b_{TR} = .04$, $p = .578$). Yet, it indirectly predicted MPIP ($ab = -.03$, $p = .001$) and MPIC ($ab = -.03$, $p = .003$) through maternal psychological distress in both cultures (H2). Thus, the hypothesis that culture would play a moderating role in the process of mindful parenting (H3) was partially supported.

Fig. 6.2 Unstandardised path coefficients obtained in the hypothesised multiple-group path analysis
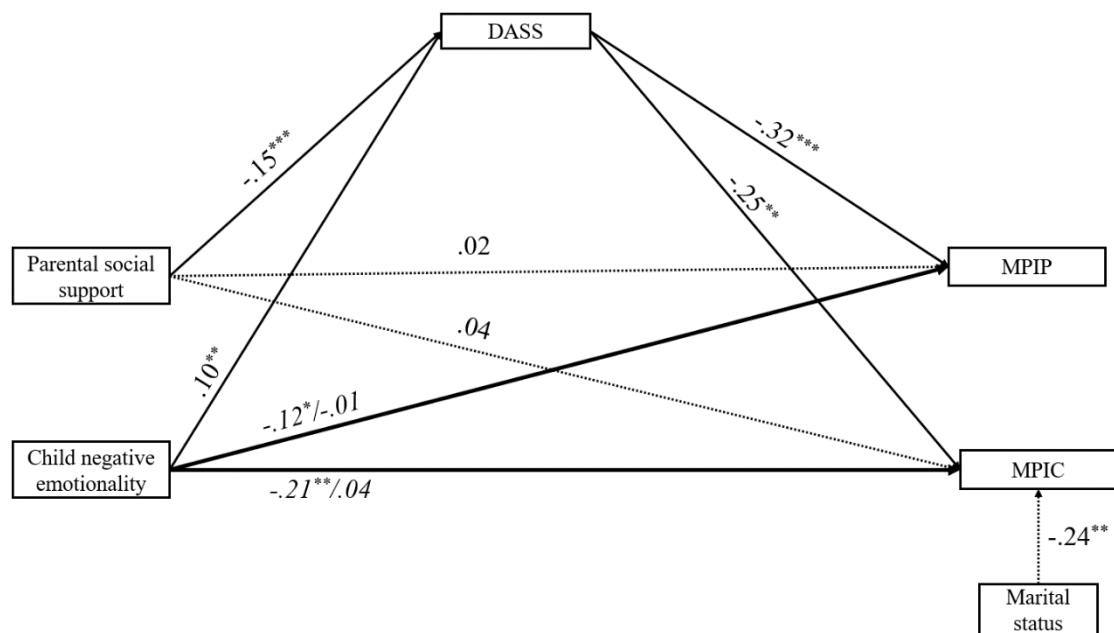
Note. All paths were constrained to be equal across the UK and Türkiye except for the thick lines, which were significant for the UK samples only (left). Dashed lines represent insignificant regression weights.

DASS = Depression Anxiety Stress Scales, *MPIP* = Mindful Parenting Inventory for Parents, *MPIC* = Mindful Parenting Inventory for Children.

Table 6.2 Total, direct and indirect effects

Total Effects	Unstandardised Estimates	Lower, Upper
Social support → MPIP	.062[*]	.010, .117
Social support → MPIC	.073[*]	.004, .114
Neg. Emo → MPIP	*-.186[**] (-.015)*	*-.274, -.081 (-.102, 069)*
Neg. Emo → MPIC	*-.258[***] (.018)*	*-.284, -.121 (-.109, .138)*
Marital status → MPIC	-.246[*]	-.519, -.010
Direct Effects		
Social support → DASS	-.154[***]	-.213, -.102
Social support → MPIP	.015	-.030, .069
Social support → MPIC	.036	-.034, .107
Neg. Emo → DASS	.104[**]	.038, .171
Neg. Emo → MPIP	*-.124[*] (.009)*	*-.218, -.024 (-.077, .091)*
Neg. Emo → MPIC	*-.211[**] (.036)*	*-.342, -.072 (-.089, .156)*
DASS → MPIP	-.321[**]	-.448, -.187
DASS → MPIC	-.250[**]	-.431, -.079
Marital status → MPIC	-.239[*]	-.510, -.005
Indirect Effects		
Social support → DASS → MPIP	.049[***]	.025, .080
Social support → DASS → MPIC	.037[**]	.011, .074
Neg. Emo → DASS → MPIP	-.033[**]	-.065, -.011
Neg. Emo → DASS → MPIC	-.025[**]	-.060, -.006

Note. [*]*p* < .05, [**]*p* < .01, [***]*p* < .001. Türkiye *equivalents of variant paths (italic font)*

are given in the brackets. DASS = Depression Anxiety Stress Scales, *MPIP =*

Mindful Parenting Inventory for Parents, *MPIC* = Mindful Parenting Inventory for

Children, *Neg. Emo.* = Child Negative Emotionality.

Discussion

The current study aimed to explore the determinants of mindful parenting in the UK and Türkiye, basing my expectations on Belsky's (1984) model. I tested total as well as direct and indirect associations of parent characteristics (maternal psychological distress), child characteristics (negative emotionality), and family social environment (maternal perceived social support) with mindful parenting in UK- and Türkiye-based mothers and their children aged 11-16 years. In addition, this study also aimed to identify the culture-general and culture-specific aspects of these associations grounded in Taraban and Shaw's (2018) model. Furthermore, I expanded on previous mindful parenting research by using multiple informants of mindful parenting (e.g., mothers and their children). Overall, this study showed that both mother and child perspectives of mindful parenting are multiply determined. The associations of child negative emotionality and social support with both perspectives on mindful parenting were mediated by maternal psychological distress. However, culture had a moderating role in this process. As discussed below, child negative emotionality was not a direct determinant of mindful parenting in Türkiye, although otherwise, the processes did not differ across countries.

First, in line with but going beyond earlier studies comparing ethnic minorities within the same country (e.g., "white people" and "people of colour"; Parent et al., 2016a, 2016b; Park et al., 2020), I found no significant differences in mother-reported total mindful parenting between the UK and Türkiye. Further, for the first time, this study suggests that child reports mirrored this finding, further supporting the idea that mindful parenting is a "culture-free" skill (McCaffrey et al., 2017). Moreover, although counter to previous research comparing the UK and Türkiye (Aytac & Pike, 2018; Kortantamer, 2011), there were no significant cultural differences in mother-reported perceived social support or psychological distress in the current sample. This may be

because the samples from the two countries were similar in sociodemographics. However, mothers in Türkiye reported higher levels of child negative emotionality than mothers in the UK. This finding is consistent with previous research, where children in less individualistic countries (e.g., Türkiye) reported higher levels of negative affectivity than their counterparts in more individualistic countries (e.g., Finland; Slobodskaya et al., 2019). This might be because children's expression of emotions is considered more normative in more individualistic cultures (Cho et al., 2022; Friedlmeier et al., 2011), resulting in British parents reporting less negative emotionality in their children compared to their Turkish parents (Aytac et al., 2019).

Second, the results showed that while the total, direct and indirect effects of child negative emotionality on MPIP and MPIC were significant in the UK, only its indirect effect was significant in Türkiye. That is, the culture did not moderate the indirect effect of children's negative impact on mindful parenting. As hypothesised and in line with previous findings (Laukkanen et al., 2014; Xing et al., 2017), increased child temperamental difficulty predicted higher levels of psychological distress in mothers, which in turn resulted in less mindful parenting in both cultures. However, perhaps more interestingly, child negative emotionality directly determined mindful parenting in the UK but not in Türkiye despite the higher negative emotionality of Turkish children reported by mothers. This finding is somewhat consistent with recent research showing that child temperament did not predict abusive parenting and only weakly predicted coercive parenting in Turkish mothers (Gölcük & Kazak-Berument, 2021). Given that certain temperament tendencies of children are considered "tolerable" in some cultures while "difficult" in others (Harkness & Super, 1996; Son et al., 2020), the explanation can be that, compared to Türkiye mothers, UK mothers were assumably more sensitive to children's temperament. Thus, children's negative affect impaired UK

mothers' mindful parenting over and above its effect via parental well-being, although children's expression of emotions might be more "normative".

However, these findings contradict the common view that parents in more autonomous cultures respond more supportive and less unsupportive to children's expression of (negative) emotions (Cho et al., 2022; Friedlmeier et al., 2011; Yang et al., 2020). This may reflect the cross-cultural difference unique to mindful parenting beyond traditional models of parenting. Indeed, we know from previous research that Turkish parents may display more "mindful" attitudes towards the expression of negative emotions than European parents, e.g., "it is okay to feel angry" (Çorapçi, et al., 2018, p. 273). Therefore, although Turkish mothers reported more child negative emotionality, they might be able to stay mindful in the face of the expression of these emotions. Further research is needed to explore the culture-specific link between child temperament and mindful parenting.

Third, social support was correlated with MPIP and MPIC in Türkiye but not in the UK. Yet, the multiple-group path model showed that these differences were negligible. Accordingly, the total effects of social support on MPIP and MPIC were significant in both cultures. This result is in line with earlier studies showing that parents who perceive more social support showed more mindful (Wang & Lo, 2020) and positive parenting but less negative parenting (Lippold et al., 2018; Taraban et al., 2019), as well as that this relationship is similar across cultures (Serrano-Villar et al., 2017). Moreover, in both cultures, maternal psychological distress fully mediated the associations between mothers' social support and MPIP and MPIC. Namely, social support did not directly predict mother- or child-report mindful parenting after accounting for parental well-being; it only indirectly affected mindful parenting by first reducing maternal psychological distress. These results fit well with Belsky's (1984)

argument that the direct effect of social support on parenting is not as strong as its indirect effect through parental psychological well-being.

Limitations and Future Directions

As previously stated, despite the increasing research on mindful parenting, cross-cultural differences and child perceptions of mindful parenting have been understudied. This study is the first to directly compare the mindful parenting process in two cultures using dyadic mother-child data. Yet, first, the findings may be somewhat limited by the samples consisting of mothers and their typically developed children aged 11-16 years. As such, further work is needed to generalise the findings to different types of families (for further discussion, *see* Chapter 8).

Second, self-report scales of parenting may cause biased results. As discussed in General Discussion (*see* Chapter 8), although this study increases the validity of the measurement using both mother and child reports, studies considering observational scales (e.g., Mindful Parenting Observational Scales; Geier et al. 2012) are warranted to capture a full picture of mindful parenting (Morsbach & Prinz, 2006).

Third, this study did not examine potentially confounding influences at the societal level, such as parenting beliefs and values or religion. These would be useful additions for future studies so as to understand the origins of cross-cultural similarities and differences in the determinants of mindful parenting.

Fourth, I cannot establish causality due to the cross-sectional nature of the data. For example, the association between child temperament and mindful parenting has been suggested to be bidirectional, such that mindful parenting may decrease negative emotionality in children, and in turn, child negative emotionality may augment mindful parenting (Lengua & Kovacs, 2005). Child temperament and parental psychological well-being have also been shown to affect each other bidirectionally; as such, increased

parental distress might be the risk factor for child negative emotionality (Wiggins et al., 2014). Moreover, the mindful parenting model has proposed that parental well-being is an outcome, rather than a predictor, of mindful parenting (Anand et al., 2021; Duncan et al., 2009). I encourage future research to use genetically informed (e.g., Oliver, 2015) or cross-lagged panel designs (Kenny, 2005) to explore directionality.

Implications

Notwithstanding these limitations, this study has valuable implications for mindful parenting research and practice. For example, considering the multiple risk factors for low mindful parenting, it may be best practice for non-clinical mindful parenting interventions to target especially high-risk parents, such as those with low social support and psychological well-being, as well as those with "difficult" children (Cowling & Van Gordon, 2022).

Using the multiple-group approach, moreover, I revealed culture-specific and culture-generic determinants of parenting. Here, the results imply that maternal psychological well-being is perhaps the most critical determinant in the process of mindful parenting, showing its mediating role in the link from child temperament and social support to mothers' and children's perceptions of mindful parenting both in the UK and Türkiye. Therefore, I suggest that preventive and therapeutic mindful parenting interventions for non-clinical samples (Potharst et al., 2021) may essentially focus on mothers' psychological well-being.

However, I also showed that maternal vulnerability to child negative emotionality might vary across cultures, endorsing the importance of using cross-cultural mindful parenting research. I thus hope my results may encourage further cross-cultural research to reveal differences/similarities in the determinants of mindful parenting. Thereby, interventions in a given culture can be revised for parents with a

lower likelihood of adopting mindful parenting rather than relying solely on mindful parenting models (Kil et al., 2021) and interventions derived from mostly Western families (Anand et al., 2021).

Chapter 7

Household Chaos and Child Problem Behaviours: A Cross-Cultural

Examination of the Mediating and Moderating Role of Mindful Parenting

Introduction

Household chaos is a well-established contextual risk factor for children's developmental and behavioural problems (e.g., Marsh et al., 2020). However, the mechanism underlying this relationship is still under debate. The leading assumption in the literature is that household chaos may affect children directly and indirectly via the social microenvironment, such as parenting (Coldwell et al., 2006). However, there is also evidence that high-quality parenting may interact with the contextual microenvironment, such as household chaos, buffering its impact on children (e.g., Wilhoit et al., 2021). The current study proposes that a specific and under-researched aspect of parenting, mindful parenting, is both an important mediating and moderating mechanism in the relationship between household chaos and child problem behaviours. I also examined cultural (macroenvironmental) influences in this process, comparing Türkiye and the UK, considering both mothers' and children's perspectives on mindful parenting.

Household Chaos and Child Outcomes

Bronfenbrenner's Ecological Systems Model suggests a complex process of development in which aspects of children's contextual (e.g., household chaos) and social (e.g., parenting) microenvironment as well as the macroenvironment (e.g., culture) directly, indirectly, and interactively influence children's behaviours (Bronfenbrenner & Evans, 2000; *see* also Fig. 1.2). As also discussed in the introductory chapter, household chaos refers to a lack of organisation and stability in the home, and empirical evidence has shown that this contextual factor can impede the cognitive development and behavioural adjustment of children (*see* Andrews et al., 2021; Marsh et al., 2020). For example, higher levels of household chaos have been linked to more problem behaviours in infants (Coley et al., 2015; Mills-Koonce et al., 2016), toddlers (Cherry & Gerstein, 2022; Coldwell et al., 2006; Wilhoit et al., 2021),

pre-schoolers (Vernon-Feagans et al., 2016), young children (Pike et al., 2006; Yalcintas et al., 2021), and adolescents (Delker et al., 2020; Shapero & Steinberg, 2013; Tucker et al., 2018). Relevant to the current study sample, among large samples of adolescents, household chaos has been shown to be associated with risk behaviours (e.g., physical violence, substance use; Delker et al., 2020) and internalising behaviours (e.g., depression and anxiety; Shapero & Steinberg, 2013). Moreover, adolescents' perceptions of household chaos have been shown to predict their substance use and depression two years later (Tucker et al., 2018). Importantly, chaos in the home is seen to have detrimental implications for behavioural development that are independent of sociodemographic factors (Deater-Deckard et al., 2009; Shapero & Steinberg, 2013).

One suggested mechanism for the link between chaos and children's behaviour is through the social microenvironment, e.g., parenting (Bronfenbrenner & Evans, 2000; Coldwell et al., 2006). That is, parents in chaotic homes can be less sensitive (Mills-Koonce et al., 2016) and responsive (Berry et al., 2016; Vernon-Feagans et al., 2016) and more hostile (Tucker et al., 2018) and intrusive (Mills-Koonce et al., 2016) towards their children, which in turn can influence children's behaviour.

Another suggested mechanism is a chaos-by-parenting interaction. According to the *protective processes hypothesis* (Côté et al., 2008; Geoffroy et al., 2007), a high-quality parent-child relationship can compensate for the detrimental impact of negative contextual environments on children. Indeed, a large body of literature has shown that positive parenting behaviours may serve as protective factors against the effects of negative contextual factors on children, such as neighbourhood risk (Supplee et al., 2007), low SES (Brown et al., 2020; Pettit et al., 1997), family stress (Lobo et al., 2021), and household chaos (Berry et al., 2016; Cherry & Gerstein, 2022; Saltzman et al., 2019; Wilhoit et al., 2021). Moreover, it has been found that the interaction between high household chaos and negative parenting predicts the highest levels of child

behavioural problems (Coldwell et al., 2006). This is thought to be because of the double risk of living in a chaotic home and being exposed to negative parenting. However, far less is known about the mediating or moderating role of mindful parenting in the association between household chaos and child behaviours.

Mindful Parenting as a Mechanism

A growing body of evidence has demonstrated that children of parents adopting mindful parenting have fewer emotional-behavioural as well as cognitive problems (e.g., Bögels et al., 2014; Emerson et al., 2021) across various developmental stages, while also showing that parents living in a disadvantageous environment are less mindful in their parenting. Previous research, for example, has indicated that in more stressful contexts (low income, work-family conflict), mindful parenting skills (e.g., non-judgmental acceptance and listening with full attention) become more difficult to practice (Moreira et al., 2019), which in turn may undermine children's behaviours. Indeed, one study conducted with parents of pre-schoolers has observed that the link between parental stress during COVID-19 and child behaviours at six-month follow-up was mediated by mindful parenting (Cheung & Wang., 2022). I thus posit that mindful parenting has the potential to be a mediating mechanism between household chaos and child behaviours.

Notably, there is also contrasting evidence to suggest that parents from disadvantageous environments (e.g., low-income, financial strain) can still be mindful in their parenting (McCaffrey et al., 2017; Park et al., 2020). For this reason, beyond its main and mediating role, mindful parenting has also been considered to moderate the negative impact of chaos on children's behaviours by allowing parents to remain unreactive and respond more healthily in a stressful or challenging environment (Laurent et al., 2017; Semenov & Zelazo, 2019). So far, three empirical studies have examined the interaction between challenging environments and mindful parenting in

association with child behaviours. Those studies have found that mindful parenting

buffered the negative effect of low SES on children's sleep quality (Kelly et al., 2022)

and life stress on infants' cortisol levels (Laurent et al., 2017), although it did not

moderate the association between parental stress and child adjustment during COVID-

19 (Cheung & Wang, 2022).

Given the detrimental effect of disadvantageous environments on mindful

parenting, here, I suggest that mindful parenting may mediate the association between

household chaos and child problem behaviours. Moreover, considering the protective

role of mindful parenting, I suggest that parents maintaining mindful parenting despite

high chaos at home would buffer the adverse effects of household chaos on child

behaviours.

Culture

The Ecological Systems Model proposes that children's microenvironment (both

contextual and social) interacts with the macroenvironment, a broader context where the

relationships are embedded (Bronfenbrenner & Evans, 2000; Wachs & Çorapçi, 2003).

Culture is an essential aspect of the macroenvironment, which may determine the

consequences of child-environment interaction depending on what is normative in

various cultures (Bornstein, 2013; Wachs & Çorapçi, 2003). That is, parents' and

children's tolerance for household chaos and children's reactions to parenting may vary

from culture to culture. For example, the threshold for responses to household noise and

crowding can be different in non-Western countries, where rooms are typically shared

with more than one person, compared with Western countries, where this is less

common (Dollberg et al., 2010).

However, most of the existing empirical evidence suggests that associations

between child problem behaviours and household chaos (*see* Wachs & Çorapçi, 2003)

and mindful parenting (*see* Cheung et al., 2021; Han et al., 2021) are comparable in autonomy-oriented (mostly Western) and relatedness-oriented (mostly Eastern) cultures. For example, within-culture studies have indicated that household chaos negatively associates with child adjustment in Chile (Delker et al., 2020), Türkiye (Öner, 2019), UK (Yalcintas et al., 2021), and the USA (Vernon-Feagans et al. 2016), whilst mindful parenting positively affects child adjustment in China (Lo et al., 2018), Netherlands (Henrichs et al., 2021), Portugal (Moreira et al., 2018), Türkiye (Aydin, 2022), UK (Kirsteen, 2019) and USA (Parent et al., 2016b). An international study has also shown that the positive association between household chaos during the COVID-19 pandemic and child problem behaviours was invariant across six countries with autonomy-oriented values (i.e., Australia, Italy, Sweden, UK, and USA) and relatedness-oriented values (i.e., China; Foley et al., 2021). Another one investigating the impact of household chaos on child problem behaviours in the UK (an autonomous culture) and Türkiye (an autonomous-relational culture) with has found that the effects were similar across the two cultures (Aytac & Pike, 2018).

However, within-culture studies are commonly heterogeneous in samples and methodologies, and cross- or multi-cultural studies are limited in number for valid inference across cultures. Further, little is known about whether the underlying mechanism in the relationship between household chaos and child behaviours is similar across cultures (Wachs & Çorapçi, 2003). To my knowledge, there are no studies to date exploring distinct associations between household chaos, parenting and child behaviours across autonomous and autonomous-relational cultures. Overall, the literature lacks systematic studies to explore the underlying process linking household chaos to child behaviours. Specifically, we know of no study conducted to examine the effect of household chaos on mindful parenting, in turn, child behaviours within or

across cultures. In addition, we do not know whether mindful parenting is protective and, if so, whether it applies across cultures.

Current Study

To improve our understanding of child behaviours, the current study examined mediating and moderating processes of child problem behaviours across UK- and Türkiye-based mothers and their children aged 11–16 years. This study hypothesised that (H1) exposure to household chaos would predict high child problem behaviours, (H2) mindful parenting would mediate the association between household chaos and child problem behaviours, and (H3) mindful parenting would moderate these associations between household chaos and child problem behaviours, mitigating the negative effect of household chaos on child problem behaviours. Furthermore, this study explored whether the proposed mechanism in which mindful parenting mediates and moderates the associations between household chaos and child problem behaviours was similar in autonomous (UK) and autonomous-relational (Türkiye) cultures. I hypothesised (H4) a stronger association of household chaos with mindful parenting and child behaviours in the UK than in Türkiye because I expected Turkish people (non-Western) to have a higher threshold for chaos as suggested elsewhere (Dollberg et al., 2010).

Method

Participants

As given in Table 7.1, the sample included 90 UK and 154 Turkish mother-child dyads. The mean age for UK mothers was higher than that for Turkish mothers ($t = 3.404$, $p < .001$). Child age ($t = -0.455$, $p = .650$), the number of children mothers had ($t = 0.913$, $p = .362$), perceived SES ($t = -0.039$, $p = .969$), marital status ($\chi^2(1) = 0.503$, $p = .478$) and child sex ($\chi^2(1) = 0.009$, $p = .926$) did not differ between cultures.

Table 7.1. Participants' sociodemographics

	UK (*n* = 90)	TR (*n* = 154)
Mothers' sociodemographics		
Age (years) (*SD*; range)	45.17 (*SD* = 5.87; 28-57)	42.74 (*SD* = 5.06; 29-53)
Number of children *M* (*SD*; range)	2.10 (*SD* = 0.78; 1-5)	1.99 (*SD* = 0.93; 1-8)
Marital status *n* (%)		
Married/cohabiting	76 (84.4%)	135 (87.7%)
Single/divorced/widowed	14 (15.6%)	19 (12.3%)
Education		
Primary or secondary education (GCSEs, A-levels or equivalent)	15 (16.7%)	51 (33.1%)
Higher education (vocational, bachelor's, master's, PhD)	75 (83.3%)	103 (66.9%)
SES *M* (*SD*; range)	6.74 (*SD* = 1.80; 1-10)	6.75 (*SD* = 1.65; 2-10)
Children's demographics		
Sex *n* (%)		
Girl	48 (53.3%)	84 (54.5%)
Boy	41 (45.6%)	70 (45.5%)
Age (years) *M* (*SD*; range)	13.09 (*SD* = 1.16; 11-16)	13.19 (*SD* = 1.64; 11-16)

Note. M = Mean, *SD* = Standard Deviation

Measures

Mothers completed the Demographic Information Form. Both mothers and their children scored their perceptions of mindful parenting on the 18-item Mindful Parenting Inventories for Parents and Children (MPIP/MPIC). The total scores were used in this study. Cronbach's alphas were .90 for UK mothers and .92 for their children, and .87 for Türkiye mothers and .88 for their children. Mothers' and children's perceptions were used as the indicators of the latent mindful parenting construct. Mothers rated their perceptions of household chaos on the Confusion, Hubbub, and Order Scale (CHAOS; Aytac & Pike, 2018; Matheny et al., 1995). One item, "there is usually a television turned on somewhere in our home", was removed as it caused low reliability in both cultures. Cronbach's alphas of the remaining five items were .70 for the UK and .53 for Türkiye. The internalising and externalising behaviours subscales of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997; Yalın et al., 2013) were used to assess mothers' perceptions of the latent variable of child problem behaviours. Internal consistency for internalising (α_{UK} = .85, α_{TR} = .75) and externalising behaviours (α_{UK} = .86, α_{TR} = .70) were acceptable in both the UK and Türkiye samples.

Statistical Analysis

Missing data were imputed using the expectation maximisation method (Tabachnick & Fidell, 2007), as they were completely at random in UK mothers [$\chi^2(47)$ = 52.194, p = .279], Türkiye mothers [$\chi^2(141)$ = 170.215, p = .047] and Türkiye children [$\chi^2(28)$ = 37.172, p = .115]. There was no missing UK children's data.

Pearson's correlations and independent samples t-tests were used to assess relationships between measured variables and mean differences between the UK and Türkiye samples, respectively. I compared the correlations across cultures using

Fisher's z-transformation (*z*). Paired samples *t*-tests were used to assess mean level differences between mother and child reports of mindful parenting within cultures.

To obtain a complete picture of the family, I used the observed mother- and child-reported mindful parenting as the indicators of the latent mindful parenting construct. In addition, I used the observed internalising and externalising child behaviours to form the latent variable of child problem behaviours. Then, using bias-corrected bootstrapped 5000 samples with 95% confidence intervals, hypotheses were tested by conducting multiple-group SEM analysis (with Emulisrel correction; Byrne, 2016) and simple slope moderation analysis. To predict child problem behaviours over and above SES and the number of children, SES and the number of children were controlled in the multiple-group SEM models considering their established association with household chaos (e.g., Dumas et al., 2005).

I conducted the multiple-group SEM analysis in three hierarchical steps where each model was compared to the previous one. First, I examined model fit indices in the SEM model, where all paths were freely estimated across the UK and Türkiye (unconstrained model). Then, I constrained factor loadings of the latent variables to be equal across the countries to establish invariance at the factor loading level (measurement weights model). Lastly, I further constrained the regression paths in the model to be equal across the UK and Türkiye to compare structural regression coefficients (structural weights model) (Chen et al., 2007). Chi-square ($p > 0.05$), CFI and RMSEA differences (Δ) between unconstrained and constrained models were examined to test invariance between the UK and Türkiye models (*see* Table 7.2). A deterioration of $> |-0.005|$, supplemented by a deterioration of > 0.010 in RMSEA, indicated inequivalence between groups (Chen, 2007). Using the "user-defined estimands" function, variant paths were identified by calculating *b* differences (Δ*b*) and then freely estimated across groups.

I conducted the moderation analysis using double-mean centring in order to estimate the interactions between household chaos and latent mindful parenting (Lin et al., 2010). A simple slopes analysis was conducted to demonstrate the association between household chaos and child problem behaviours at the low (-1 *SD*) and high (+1 *SD*) levels of mindful parenting.

Results

Preliminary Results

Table 7.2 shows correlations between all study variables as well as descriptive statistics and UK/Türkiye comparisons. MPIP and MPIC were significantly correlated in the UK and Türkiye (r_{UK} = .61, $p < .001$; r_{TR} = .39, $p < .001$); this correlation was more robust in the UK ($z = 2.207$, $p = .014$). Paired samples *t*-test analysis showed that Türkiye-based mothers reported higher levels of mindful parenting than their children did ($t = 2.776$, $p = .006$). There was no such difference between parents and children based in the UK ($t = 0.435$, $p = .664$). Significant cultural mean differences between the UK and Türkiye were found in internalising child behaviours; Turkish mothers reported higher internalising child behaviours ($t = -2.49$, $p = .013$) than their UK counterparts.

As given in Table 7.2, internalising and externalising child behaviours were negatively correlated with MPIP both in the UK and Türkiye. However, the correlation between internalising behaviours and MPIP was stronger in the UK ($z = -2.462$, $p = .007$). While MPIC was negatively associated with internalising behaviours in both countries, it was significantly correlated with externalising behaviours in the UK only ($z = -2.689$, $p = .004$). In addition, the correlation between internalising behaviours and MPIC was again stronger in the UK ($z = -2.351$, $p = .009$).

Household chaos had negative associations with MPIP in both countries; this correlation was slightly stronger in the UK ($z = -1.737$, $p = .040$). The association

between household chaos and MPIC was significant only in the UK. However, Fisher's

z-test showed that the difference in correlations was not significantly different ($z = -1.188$, $p = .117$).

Table 7.2 Correlations and descriptive statistics of the study variables in the two samples (UK and TR)

	1	2	3	4	5	*M*	*SD*	Skew.	Kurt.	*M*	*SD*	Skew.	Kurt.	*t*
						UK				TR				
1. MPIP	-	.61***	-.46***	-.54***	-.49***	3.70	0.49	-0.00	-0.52	3.80	0.53	-0.40	-0.31	-1.59
2. MPIC	.39***	-	-.28**	-.47***	-.46***	3.67	0.69	-0.77	0.75	3.65	0.69	-0.45	-0.34	0.20
3. Household chaos	-.26**	-.13	-	.49***	.59***	1.93	0.67	0.42	-0.69	2.10	0.69	0.47	-0.24	-1.78
4. Internalising behaviours	-.26**	-.19*	.15	-	.70***	0.43	0.41	1.07	0.44	0.56	0.37	0.62	-0.32	-2.49*
5. Externalising behaviours	-.35***	-.14	.23**	.34***	-	0.49	0.42	0.99	0.14	0.54	0.32	0.48	-0.21	-0.95

Notes. The correlation coefficients displayed above the diagonal are for the United Kingdom (UK) and below for Türkiye (TR). M = Mean, SD =

Standard Deviation, *Skew. = Skewness, Kurt. = Kurtosis.*

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

Multiple Group Analysis

Total Effects of Household Chaos on Child Behaviours

Compared to the unconstrained model, the measurement weights model did not worsen fit (*see* Table 7.3), implying that factors loaded equally in the UK and Türkiye. Thus, I examined the total effect of household chaos on child problem behaviours, as well as whether the total effect varied across cultures. Compared to the measurement weights model, however, the structural weights model showed a poorer fit to the data (*see* Table 7.3), implying that not all paths should be treated as equal. I found that the paths from household chaos and number of children to latent child problem behaviours were non-invariant across groups and should be freely estimated (*see* Table 7.4). Accordingly, household chaos predicted child problem behaviours in both countries (H1). However, *B* difference (Δb) showed that, as hypothesised (H4), household chaos predicted child problem behaviours more strongly in the UK than in Türkiye (*see* Fig. 7.1 and Table 7.4).

Fig. 7.1 Unstandardised path coefficients obtained in hypothesised multiple-group SEM

analysis (total effects)
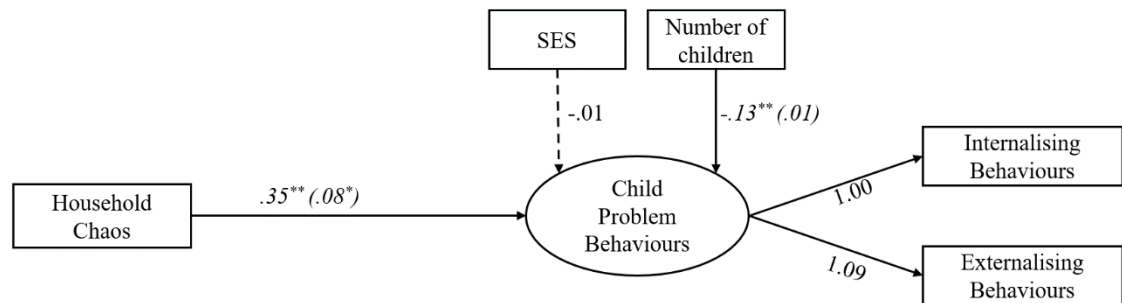
Notes. $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$. *SES* = Perceived Socioeconomic Status

The paths which were significantly different for the UK (left) and Türkiye (right) were

freely estimated across the countries (italic font). Dashed lines represent non-
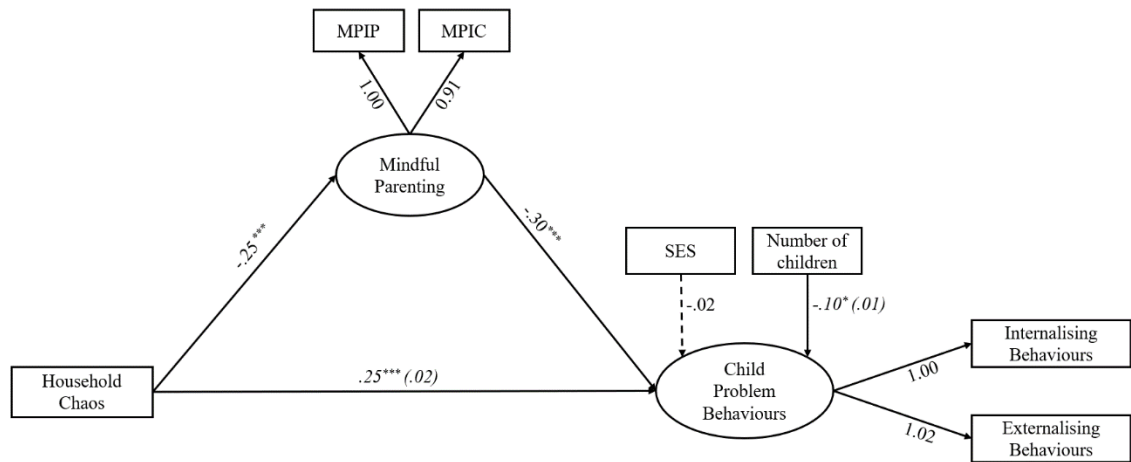
significant regression weights for both countries.

Mediating Role of Mindful Parenting

When the latent mindful parenting variable was included as the mediator in the model, the comparison between the unconstrained and measurement weights models implied, again, that factors loaded equally in the UK and Türkiye samples (*see* Table 7.3). I then tested the multiple-group mediation model in which household chaos predicted child problem behaviours through mindful parenting in the UK and Türkiye samples. Compared to the measurement weights model, the model fit was worse in the structural weights model (*see* Table 7.3). I again identified that the paths from household chaos and the number of children to child problem behaviours caused significant worsening of model fit when assumed to be equal across groups (*see* Table 7.4). Therefore, I freely estimated two variant paths and constrained three invariant paths to be equal for the two samples for the remaining analyses. The model fit of the final partially constrained model was good (*see* Table 7.3).

As illustrated in Fig. 7.2, household chaos predicted mindful parenting, and mindful parenting predicted child problem behaviours in both UK and Türkiye samples (*see* Table 7.4). Note that, contrary to my expectation (H4), the predictive strength of household chaos to mindful parenting was invariant across cultures. When controlling for mindful parenting, the path from household chaos to child problem behaviours remained significant in the UK sample only. Finally, the indirect effects (*ab*) of household chaos on child problem behaviour through mindful parenting were significant in both the UK and Türkiye (H2); and there was no difference in the strength of the indirect effect between cultures. All total, direct, and indirect effects, as well as the comparison statistics across the UK and Türkiye, are given in Table 7.4.

Fig. 7.2 Unstandardised path coefficients obtained in hypothesised multiple-group

SEM analysis (direct and indirect effects)

Notes. *p < .05, **p < .01, ***p < .001. *SES* = Perceived Socioeconomic Status

The paths, which were significantly different for the UK (left) and Türkiye (right), were

freely estimated across the countries. Dashed lines represent non-significant regression

weights for both countries.

Table 7.3 Measurement and structural invariance test across the UK and Türkiye

$n_{UK} = 90$; $n_{TR} = 154$	χ^2	df	CFI	RMSEA [90%CI]	Comparison	$\Delta\chi^2$	Δdf	ΔCFI	ΔRMSEA	Decisions
Total Effect Model										
1. Unconstrained	8.368	4	0.972	0.067 [0.000, 0.132]						
2. Measurement weights	8.747	5	0.976	0.056 [0.000, 0.115]	2 vs. 1	0.380	1	-0.004	-0.005	Accept
3. Structural weights	35.505	8	0.824	0.119 [0.081, 0.161]	3 vs. 2	26.758***	3	-0.152	0.063	Reject
4. Structural weights[a]	9.105	6	0.980	0.046 [0.000, 0.103]	4 vs. 2	0.358	1	0.004	-0.010	Accept
Mediation Model										
1. Unconstrained	23.409	18	0.981	0.035 [0.000, 0.071]						
2. Measurement weights	25.789	20	0.979	0.035 [0.000, 0.071]	2 vs. 1	2.380	2	-0.002	0.000	Accept
3. Structural weights	47.954	25	0.919	0.062 [0.034, 0.088]	3 vs. 2	22.166***	5	-0.060	0.027	Reject
4. Structural weights[a]	28.761	23	0.980	0.032 [0.000, 0.065]	4 vs. 2	2.972	3	0.001	-0.003	Accept

Notes. ***$p < .001$. χ^2 = *chi-square, df = degrees of freedom*; CFI = *comparative fit index*; RMSEA = *root-mean-square error of approximation*; CI = *confidence interval;* $\Delta\chi^2$ = χ^2 *change in the constrained model compared to the unconstrained model;* Δdf = *df change in the constrained model compared to the unconstrained model;* ΔCFI = *CFI change in the constrained model compared to the unconstrained model;* ΔRMSEA = *RMSEA change in the constrained model compared to the unconstrained model;* [a]*Paths from household chaos and number of children to child problem behaviours were freely estimated across the UK and Türkiye*

**Table 7.4** Total**,** direct, and indirect effects in multiple-group analysis

Total Effects	Unstandardised Estimates (*b*)	95% CI	Δ*b*, 95% CI
Household chaos → Child problem behaviours	*.352**(.08*)*	*0.236, 0.458 (0.017, 0.153)*	*0.274*** [0.149, 0.404]*
SES→ Child problem behaviours	-.012	-0.042, 0.009	0.013 [-0.034, 0.052]
Num. of child → Child problem behaviours	*-.126**(.012)*	*-0.225, -0.045 (-0.045, 0.053)*	*-0.139** [-0.258, -0.043]*
Direct Effects	**Unstandardised Estimates (*b*)**	**95% CI**	**Δ*b*, 95% CI**
Household chaos → Mindful parenting	-.247***	-0.345, -0.137	-0.117 [-0.312, 0.093]
Mindful parenting → Child problem behaviours	-.303***	-0.533, -0.145	-0.145 [-0.525, 0.254]
Household chaos → Child problem behaviours	*.253*** (.022)*	*0.143, -0.357 (-0.048, 0.085)*	*0.191* [0.032, 0.322]*
SES→ Child problem behaviours	-.017	-0.045, 0.003	0.008 [-0.045, 0.061]
Num. of child → Child problem behaviours	*-.098*(.009)*	*-0.191, -0.014 (-0.047, 0.050)*	*-0.102* [-0.210, 0.000]*
Indirect Effects	**Unstandardised estimates (*ab*)**	**95% CI**	**Δ*ab*, 95% CI**
Household chaos → Mindful Parenting → Child problem behaviours	-.033**	-0.054, -0.013	0.00 [0.00, 0.000]

Note. *p < .05, **p < .01, ***p < .001. *SES* = Perceived Socioeconomic Status; *Num. of child* = Number of children. Türkiye *equivalents of variant paths (italic font) are given in the brackets.*

Moderating Role of Mindful Parenting

In the UK, the interaction effects between household chaos and mindful parenting on child problem behaviours were statistically significant (b_{UK} = -.19, 95% *CI* = [-0.508, -0.010], *p* = .034). As shown in Fig. 7.3, household chaos positively predicted child problem behaviours only at the low levels of mindful parenting (-1 *SD*; *b* = .247, 95% *CI* = [0.077, 0.377], *p* = .008), but not at the high levels of mindful parenting (+1 *SD*; *b* = .180, 95% *CI* = [-0.012, 0.293], *p* = .060). That is, as expected (H3) household chaos was relevant to increased problem behaviours for children whose parents had low mindful parenting scores. However, in Türkiye, there was no significant interaction between household chaos and mindful parenting to affect child problem behaviours (b_{TR} = -.22, 95% *CI* = [-1.179, 0.014], *p* = .059).

Fig. 7.3 Illustrations of interaction between household chaos and mindful parenting for child problem behaviours in the UK
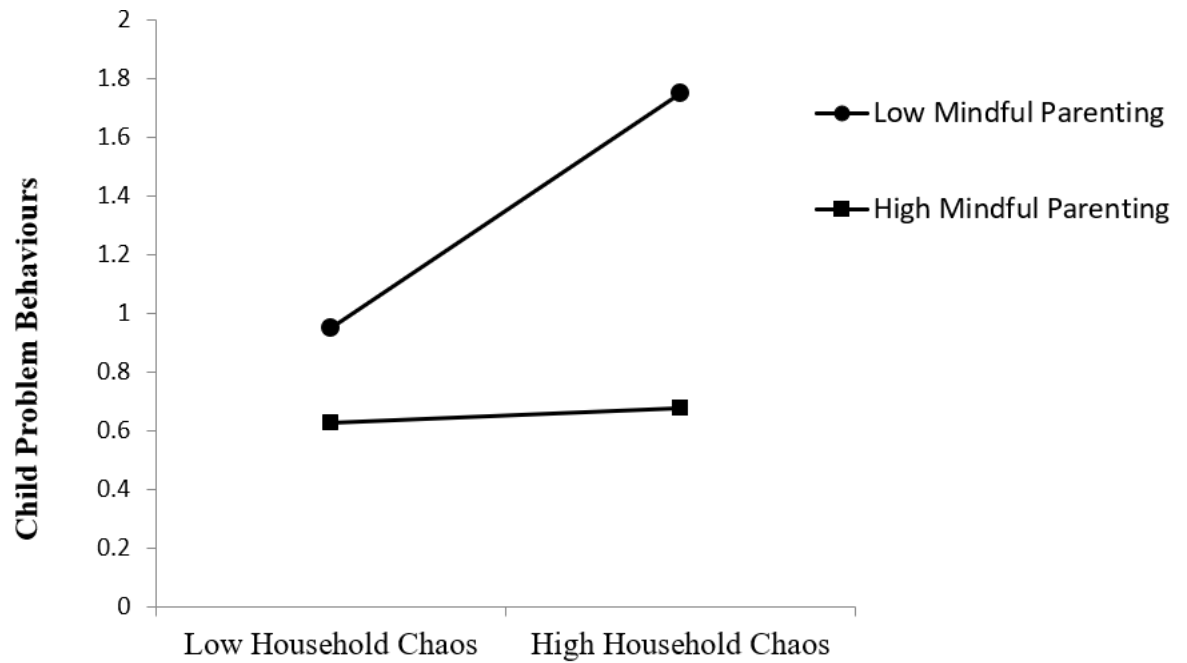
Note. The simple slopes were adjusted for Perceived Socioeconomic Status and number of children.

Discussion

The current study of mothers and their 11-16 years old children investigated mindful parenting as a mediating and moderating mechanism in the association between household chaos and child problem (i.e., internalising and externalising) behaviours in samples from the UK and Türkiye. Firstly, supporting the first hypothesis (H1), multiple-group path analysis indicated that high household chaos was a risk factor for child problem behaviours both in the UK and Türkiye. It is also possible that disruptive outward behaviours (e.g., hot tempers, fidgeting, fighting) and inward behaviours (e.g., sadness, loneliness, worry) may lead to more chaos in the household environment (Jaffee et al., 2012). However, note that the household chaos risk for problem behaviours was lower for Türkiye-based children. I speculate that Turkish children may have more tolerance for noise or less privacy (Kaya & Weber, 2003), and in turn, are less affected by the chaos in the household. It is also possible that, as discussed in Chapter 6, a "difficult" child may be more "tolerable" for Turkish parents than UK parents; as such, child problem behaviours less strongly affect mothers' perceptions of household chaos.

Secondly, the current study showed that, although the association between household chaos and child problem behaviours differs in the UK and Türkiye, mindful parenting as a mediating mechanism in this relationship was similar across the two cultures, as suggested elsewhere (Wachs & Çorapçi, 2003). That is, as hypothesised (H2), mindful parenting significantly mediated the link between household chaos and child behaviours in both countries, even after accounting for important confounders of this relationship, i.e., SES and the number of children in the home. Moreover, the association between household chaos and mindful parenting was invariant across cultures. Therefore, I suggest that parents in both cultures who perceive their home as

more chaotic may have more difficulties with paying full attention and responding mindfully to children and with self-regulation, resulting in higher problem behaviours.

These results provide support to the argument for a "universal" positive association between mindful parenting and children's adjustment (Kabat-Zinn, 2005; McCaffrey et al., 2017). However, it is important to note that I found this relationship to be stronger in the UK sample than in the Türkiye sample. This may be due to the documented tendency of Türkiye-based families to be more likely than UK families to report socially desirable behaviours in parenting (Bornstein et al., 2015). To the extent this is true, the somewhat biased reports may have attenuated the relationship between mindful parenting and child behaviours in Türkiye (Fisher & Katz, 2000). Indeed, I found that mother-child agreement on mindful parenting was weaker in Turkish dyads than in the UK ones. The low agreement in the Turkish dyads may explain why mindful parenting contributed less to child behaviours in Türkiye. Since the current study is the first to examine cultural differences in mindful parenting, further research is needed to warrant this finding.

Lastly, the findings provide support to the *protective processes hypothesis* (Côté et al., 2008; Geoffroy et al., 2007), revealing that the role of the contextual microenvironment, e.g., household chaos, in child adjustment may differ across social microenvironments with high and low mindful parenting. Partially supporting my third hypothesis (H3), I found that higher mindful parenting attenuated the association between household chaos and problem behaviours in the UK, predicting problem behaviours only at low levels of mindful parenting. In Türkiye, however, there was no such attenuation. This might be due to the already lower detrimental effect of household chaos on Turkish children's behaviours, as I found in the current study. Overall, I posit that high mindful parenting may serve as a protective factor for children by helping

them to regulate their behaviours when faced with chaos in the home; in contrast, low mindful parenting may render children vulnerable to household chaos.

There are several potential explanations for these protective processes. For example, mindful parenting involves being aware of children's emotions and being responsive to them. Thus, mindful parenting may provide children with a safe and nurturing environment, ensuring their needs are validated and met (Laurent et al., 2017), which may relieve children from the stress related to household chaos. Moreover, mindful mothers with self-regulation skills may be role models for children in regulating their emotions and behaviours in such a chaotic environment, minimising its damage to children (Zhang et al., 2022). It would also be interesting to investigate whether the observed protective effect is due to mindful parenting promoting cortisol recovery in children facing environmental stress, as suggested in previous research (Brown et al., 2020; Laurent et al., 2017). I emphasise the need to examine the relationships between household chaos and child behaviours in conjunction with mindful parenting as children's social microenvironment, especially to capture the complete picture of child problem behaviours (Wilhoit et al., 2021).

However, some may also argue that children from disadvantaged environments benefit more from high-quality parenting (Rochette & Bernier, 2014). Accordingly, mindful parenting may further reduce child problem behaviours under high household chaos conditions by providing stability otherwise unavailable in the children's environment. As such, I advise practitioners to consider that mindful parenting may be of greater importance for children from chaotic households.

Limitations and Future Directions

Although there are several study strengths, not least the inclusion of child as well as parent perceptions of mindful parenting, I should acknowledge limitations. First

of all, the directions of the associations, whilst theory-driven, in practice remain arbitrary due to the cross-sectional nature of the current data. Further research is warranted to establish causal links among the variables in the current study (for further discussion, *see* Chapter 8).

Second, this study used dual-informant reports (mothers and children) of mindful parenting to reduce family-level response biases (Schofield et al., 2016). Linked to my note above, however, the cross-cultural comparisons still require cautious interpretation due to culture-level response biases of self-reports (Chen et al., 2019). A combination of multiple-method (personal reports and observations) and multiple-informant (parents, teachers, children) approaches is ideal for reducing potential biases in cross-cultural parenting research (Chen et al., 2019; Podsakoff et al., 2012) (for further discussion, *see* Chapter 8).

Third, the findings are constrained by the characteristics of my samples. For example, I recruited only mothers and their typically developing adolescents, yet more heterogeneous samples are needed to have greater confidence in generalisability (for further discussion, *see* Chapter 8).

Fourth, I did not examine a three-way interaction (mindful parenting*household chaos*culture) on problem behaviours due to the small sample size. As such, it remains unclear whether the cultural differences in the interactions are statistically significant or negligible. Studies using larger, more diverse samples will be important to provide more power analyses to unpick the likely complex processes at play.

Fifth, as in previous research (Aytac & Pike, 2018), CHAOS had poor internal consistency in Türkiye in my study. In particular, the item "there is usually a television turned on somewhere in our home" considerably reduced the reliability in both countries and was removed from the scale. It could be due to a change in television-

watching habits or replacing TV with other devices in today's families since 1995, the year CHAOS was developed. As such, I consider that researchers may need an updated scale to assess household chaos.

Lastly, this study bridges a critical gap in understanding how contextual, social, and broader cultural aspects of children's environment might interact to impact their behaviours (Bradley, 2019). However, there is much progress to be made. For example, it could be of interest to examine household chaos, mindful parenting, and child behaviours in conjunction with macro-level factors embodied in culture, such as family policies as well as norms and beliefs (Chen et al., 2019).

Conclusion

This study indicates the necessity of considering the multi-aspect environments in which children's behaviours occur to have a full picture of child adjustment processes, showing the complex associations of environmental factors with child outcomes. I identified mindful parenting as the transcultural mechanism in which household chaos impacts child behaviours. Therefore, I recommend that researchers remember that household chaos may still have an indirect negative effect on children by reducing mindful parenting, even if no direct impact is observed.

However, not only do I acknowledge only that household chaos may negatively impact parents' mindful parenting skills but also that maintaining mindful parenting despite the chaotic home environment may somewhat prevent their children from being negatively affected by the chaos. Thus, I hope my results encourage mindful parenting interventions to mitigate the link between chaos and child behaviours. Yet, because the interaction effect might be two-way, I recommend keeping in mind that children experiencing high levels of household chaos could benefit more from mindful parenting.

Chapter 8

General Discussion

General Discussion

This thesis, with five interdependent studies, addressed the overarching aim of exploring the associations of parents' and children's perceptions of mindful parenting across the UK and Türkiye. Previous chapters discussed the aims and findings of each study in detail. This chapter, first, briefly reminds these aims and findings. Then, it synthesises the main findings obtained throughout the thesis. Finally, it discusses the strengths, limitations, and future directions, as well as the implications of the thesis.

Summary of Aims

As a beginning, I carried out the first systematic narrative review (Chapter 3) in order to assess the current empirical research on mindful parenting and thus provided a framework for the subsequent studies. I found that mindful parenting might be multiply determined by parent characteristics, child characteristics, family social environment, as well as parenting stress. However, the existing research was somewhat mixed, with essential gaps in the literature. Accordingly, I designed my thesis considering the issues and gaps in the current literature, as summarised below.

First, the systematic review showed that existing studies on mindful parenting often targeted broad age groups of children and their parents, ignoring developmental stage-related variety in the parenting process (Darling & Steinberg, 1993). The lack of age specificity may give rise to theoretical and practical issues, such as difficulties in drawing conclusions and comparing results, imprecision in measurement, and consequently inhibiting the development of more targeted interventions. As such, throughout the thesis, I limited the samples of my studies to the 11–16-year period, when mindful parenting becomes particularly important (Duncan et al., 2009).

Second, as the review revealed that the existing research relied on parent reports of mindful parenting and that there is no valid measure of child-reported mindful parenting in the literature yet. Thus, the subsequent studies aimed to develop parallel

mindful parenting inventories (MPIP/MPIC) to simultaneously measure parents' and children's perspectives of mindful parenting in the UK (Chapter 4) and adapt the inventories into Turkish (Chapter 5).

Third, although the mindful parenting process is considered a universal concept, the review showed no empirical evidence to support or reject this proposition. Therefore, Chapter 6 and Chapter 7 were designed to explore the process of mindful parenting across cultures, considering both mothers' and children's perceptions of mindful parenting. Specifically, Chapter 6 investigated child negative emotionality, maternal social support, and maternal psychological distress as the predictors of mindful parenting in the UK and Türkiye. Chapter 7 tested mindful parenting as a mediating and moderating mechanism in the association between household chaos and child problem behaviours in both countries. As presented in Table 8.1, the two studies revealed similarities and differences in the mindful parenting process across cultures.

Table 8.1 Main findings across the studies

Chapter	Main finding 1	Main finding 2	Main finding 3	Conclusion
Chapter 3 The Process of Mindful Parenting Model: A Systematic Narrative Review	Mindful parenting might be multiply determined by characteristics of the parent, child, family social environment, and parenting stress.	Mindful parenting studies rely on parent reports of mindful parenting rather than child, partner or observer reports.	The existing literature is heterogenous regarding child developmental stage, whilst it is homogenous regarding parents' sex/gender, SES and culture.	The existing research is mixed, with important gaps in the literature.
Chapter 4 Perspectives of Maternal Mindful Parenting: Development and Initial Validation of the Mindful Parenting Inventories for Parents (MPIP) and Children (MPIC) **Chapter 5** Turkish Adaptation of the Mindful Parenting Inventories for Parents and Children	MPIP/MPIC each consisted of 18 items establishing an overarching mindful parenting construct consisting of four dimensions: Self-Regulation in Parenting, Acceptance and Compassion towards Child, Being in the Moment with Child, and Awareness of Child.	The English and Turkish versions of MPIP/MPIC demonstrated good internal consistency, retest reliability, and convergent, concurrent, and predictive validity.	The inventories are partially invariant across mothers and their children in both the UK and Türkiye. UK-based mothers and their children had a more robust agreement and lower discrepancies on mindful parenting than their Türkiye-based counterparts.	English and Turkish versions of MPIP/MPIC are valid and reliable for assessing mindful parenting perceptions of mothers and children aged 11-16 years living in the UK and Türkiye, respectively.
Chapter 6 Determinants of Mindful Parenting: A Cross-Cultural Examination of Mother and Child Reports	Social support did not directly predict mothers' or children's perspectives of mindful parenting in the UK and Türkiye.	Child negative emotionality directly predicted mothers' and children's perspectives of mindful parenting only in the UK.	Child negative emotionality and social support were indirectly associated with mothers' and children's perspectives of mindful parenting in the UK and Türkiye.	This study shed light on both individual and cultural differences in the mindful parenting process.

Table 8.1 *(continued)*

Chapter 7 Household Chaos and Child Problem Behaviours: A Cross-Cultural Examination of the Mediating and Moderating Role of Mindful Parenting	Household chaos more strongly predicted child problem behaviours in the UK than in Türkiye. Moreover, after controlling for mindful parenting, the direct effect of household chaos on child problem behaviours was significant in the UK only.	Household chaos was a significant indirect predictor of child problem behaviours via mindful parenting both in the UK and Türkiye.	Simple slopes analysis showed that mindful parenting moderated the link between household chaos and child problem behaviours in the UK.	This study demonstrated the importance of micro- and macro-environmental factors and their interactions in children's adjustment.

Emerging Key Findings and Implications

The overarching aim of the thesis was achieved. Accordingly, I conclude that (1) newly developed MPIP/MPIC can measure mothers' and children's perspectives of mindful parenting, (2) mindful parenting is different from traditional parenting and dispositional mindfulness, (3) Mindful parenting is a complex and dynamic process influenced by multiple factors directly, indirectly, and interactively. These key emerging conclusions, along with their implications, are discussed below.

Mindful parenting can be measured and compared across mothers and their children.

As intended, I developed the English version of MPIP/MPIC in the UK in order to assess the interpersonal aspects of parent and child perceptions of mindful parenting. Then, I validated the Turkish version of the inventories in Türkiye. Factor analysis showed that MPIP consists of four factors, although I initially expected five (*see* Table 8.1. and Chapter 4 and Chapter 5). Items to assess Non-judgemental Acceptance of Child and Compassion Towards Child, together, composed a single factor called Acceptance and Compassion towards Child. This was not entirely unexpected. As found in the systematic review (Chapter 3), items of those two dimensions of mindful parenting tend to merge into one factor, which was the case across different cultures (*see* Table 3.4), perhaps, due to their conceptual relatedness (Corthorn et al., 2022). This factor structure was confirmed in UK-based children as well as Türkiye-based mothers and their children.

Furthermore, I tested measurement invariance between MPIP and MPIC to ensure that the inventories measure the same construct between mothers and their children, that is, are comparable (Russell et al., 2016; Van Heel et al., 2019). Partial measurement invariance was achieved across mother and child reports of mindful

parenting in both the UK and Türkiye samples. Specifically, configural invariance indicated that the overall factor structure of MPIP and MPIC was identical between mothers and children in both countries. Full metric invariance in the UK and partial metric invariance in Türkiye indicated that each MPIP/MPIC item was similarly loaded on their respective latent construct. Finally, partial scalar invariance showed that most items, but not all, were interpreted and responded to similarly by both mothers and children in the UK and Türkiye. Thus, the partially invariant measurement model of MPIP/MPIC across reporters allowed me to compare mother and child perceptions of mindful parenting.

In the UK, I found higher mother-child agreement (correlations between MPIP and MPIC) and lower discrepancies (mean differences between MPIP and MPIC) about mindful parenting than expected. Besides, both MPIP and MPIC total scores were similarly and strongly associated with child behaviours, perhaps, due to the high agreement. In Chapter 4, I speculated that the higher agreement in mindful parenting might be because the sample consisted of mothers and children who agreed to participate in the study together, probably as they communicated more openly in their relationships (Havermans et al., 2015). However, although they were recruited using the same approach as UK participants, namely as dyads, Türkiye-based mothers and their children had a significantly weaker agreement and higher discrepancies on mindful parenting, with mothers reporting higher mindful parenting total scores than their children. Further, MPIP/MPIC total scores were differently associated with various aspects of child behaviours in Türkiye.

On the one hand, this finding may reflect relatively more "objective" parental reports of mindful parenting in the UK than in Türkiye due to less tendency of mothers with more autonomy-oriented values (UK) to self-report socially desirable behaviours than their counterparts with relatively fewer autonomy-oriented values (Türkiye). On

the other hand, the low agreement between mother and child reports in Türkiye may indicate differing agendas for mothers and children or may index underlying further problems in mother-child relationship dynamics, such as lack of communication and affection or increased conflict (Hou et al., 2020; Leung & Shek, 2014). Moreover, the higher child negative affect and internalising problems I found in Türkiye may be the source or consequence of the low agreement (Hou et al., 2020; Korelitz & Garber, 2016.) Future research should explore whether low parent-child correspondence in mindful parenting reflects further problems.

Overall, I conclude that there is some variability in mothers' and children's perceptions of mindful parenting, as in traditional parenting. In fact, my thesis revealed that using different perspectives may be more prominent for Türkiye, a less autonomous culture. However, this finding contrasts with previous meta-analytic research reporting lower levels of parent-child agreement on parenting in more autonomy-oriented cultures (Hou et al., 2020). Given that the current thesis did not measure participants' autonomy/relatedness-oriented values, I acknowledge that attributing the differences to cultural values might be speculative. Further research assessing these values using standard measures, e.g., the Portrait Value Survey (Schwartz et al., 2001), is needed to test whether the cross-cultural difference in parent-child agreement on mindful parenting is associated with autonomy/relatedness-oriented values.

Note that further caution is warranted in interpreting these findings as full measurement invariance between MPIP and MPIC was not achieved. I acknowledge that such partial measurement invariance can lead to biased results, as the inventories may not accurately capture the construct of interest across groups (Millsap & Kwok, 2004). Thus, researchers should be aware that mother-child differences may be partly due to measurement differences, not perspective differences, and consider the potential reasons for nonivariance or partial invariance. For example, some MPIP/MPIC items

may be more relevant or important for one group than another (Campbell et al., 2008), or they may define mindful parenting differently (Tein et al., 1994). Alternatively, this may reflect different levels of understanding; for instance, some MPIP/MPIC items may be more ambiguous or confusing to one group. Finally, as discussed throughout this thesis, it may indicate that one group may be more prone to provide socially desirable responses. Future research is needed to unearth reasons for noninvariance and "true" discrepancies across parents and their children, as well as the determinants and consequences of the discrepancies.

The parallel MPIP/MPIC has important implications for mindful parenting researchers and practitioners. The inventories will fulfil the need to use multi-respondent reports, more importantly, child reports, for a less biased, more valid, and comprehensive assessment of mindful parenting (Scott et al., 2011). Thus, mindful parenting researchers and practitioners can rely on multiple perspectives, rather than a single perspective, to better understand family dynamics and may investigate the sources and consequences of parent-child discrepancies between parents' and children's perceptions of mindful parenting (Guion et al., 2008). Another important consideration is that parents who participate in mindful parenting interventions may report higher levels of mindful parenting, even if they have not yet implemented the techniques they have learned, due to having gained knowledge and understanding of the underlying principles of mindful parenting. Indeed, despite the increase in parent-reported mindful parenting, research has found no improvement in child problem behaviours and well-being in clinical and non-clinical settings, respectively (Potharst et al., 2021). This may imply that the improvement in child adjustment mainly depends on the change in child perceptions of mindful parenting rather than those of their parents. Thus, testing whether parent reports of mindful parenting following the intervention are congruent

with those of their children is essential for researchers and practitioners using
MPIP/MPIC.

Mindful parenting is different from traditional parenting and dispositional mindfulness.

This thesis suggests that mindful parenting goes beyond dispositional mindfulness and the mainstream definitions of parenting; thus, it should be recognised as a separate area of research. Specifically, as the General Introduction (Chapter 1) discussed, intrapersonal and interpersonal mindfulness are related but distinct constructs. This is evidenced by the unique variance of dispositional mindfulness and mindful parenting in predicting child behaviours alongside their significant positive correlations in the UK (Chapter 4) and Türkiye (Chapter 5). Notably, in the UK, mindful parenting rather than maternal dispositional mindfulness accounted for a greater proportion of the variance in child- and mother-reported child behaviours. As a theoretical implication, this supports that dispositional mindfulness, a general tendency towards mindfulness, can serve as a foundation for mindful parenting. As a practical implication, this finding suggests mindfulness-based interventions directly targeting parenting (e.g., parenting-focused mindfulness intervention) rather than indirectly promoting parenting through, e.g., reduced stress (e.g., Mindfulness-Based Stress Reduction) may be a more effective way to improve child adjustment.

Similarly, MPIP/MPIC was small-to-moderately associated with various aspects of traditional parenting and explained an additional unique variance in child behaviours, suggesting mindful parenting to be a distinct parenting construct. Theoretically, I consider the small correlations between mindful parenting and poor supervision essential since it may reflect that monitoring and controlling the child, unlike traditional parenting constructs, is not a key component of mindful parenting (e.g., Baumrind, 1966; Maccoby & Martin, 1983). In addition, contrary to previous findings, current

findings that traditional parenting often fails to predict child behaviour after controlling for mindful parenting may hint at the changing nature of parenting. For practice, thus, I speculate that the need for mindful parenting interventions to manage attention in the parent-child interaction may be more prominent in the era of digital distractions such as smartphones, social media, and tech-driven multitasking (Larkin et al., 2020).

Mindful parenting is a complex and dynamic process.

This thesis suggests a mindful parenting process similar to traditional parenting in which parent characteristics (i.e., psychological distress), child characteristics (i.e., negative emotionality), and various levels of the family social environment (i.e., social support, household chaos and culture) may directly, indirectly, or interactively determine mindful parenting and, in turn, child adjustment. Particularly, Chapter 3 indicated that mindful parenting is multiply determined by the diverse characteristics of the parent, child, and family social environment. Moreover, a recent review of mindful parenting research has also replicated this finding among parents of adolescents (Hidayati & Hartini, 2022).

Chapter 6 provided further empirical support, revealing that child negative emotionality (child characteristics) and maternal social support (family social environment) indirectly determined both mothers' and children's reports of mindful parenting by first affecting psychological distress (parent characteristics) in the UK and Türkiye. Notably, Chapter 6 also partially supported Belsky's (1984) claim that these determinants do not have an equal influence on parenting. To be specific, 'parental psychological distress was a better determinant of mindful parenting than social support, which itself is a stronger determinant than child negative emotionality' (Belsky, 1984; p. 63); the former was supported in both cultures, while the latter was supported only in Türkiye. Namely, social support only indirectly affecting mindful parenting was relatively less of a risk factor in both cultures. However, child negative emotionality

was a greater risk factor for UK mothers' mindful parenting than for Türkiye mothers, directly and indirectly influencing mindful parenting in the UK but only indirectly affecting mindful parenting in Türkiye. The full mediating role of maternal psychological distress in Türkiye supports the assertion that establishing mindful parent-child relationships primarily depends on the characteristics of parents rather than those of the children (Duncan et al., 2009).

Chapter 7 showed that household chaos determined mindful parenting, which in turn, child problem behaviours in both cultures, although more strongly in the UK. However, in the UK, chaos at home did not affect the problem behaviours of children whose parents were more mindful, while it increased the problem behaviours of children whose parents were less mindful.

Taken together, this thesis implied that studies should consider the complex and interactive associations among mindful parenting and its multiple determinants and outcomes, rather than their isolated bivariate associations, to elucidate the full picture of the mindful parenting process. This reveals several implications for mindful parenting theory, research, and practice. First, this thesis addresses the importance of considering parents' challenges or strengths in implementing mindful parenting skills. Theorists and researchers need to expand Duncan et al.'s (2009) mindful parenting model, which focuses on outcomes rather than determinants, to provide a complete process of the mindful parenting model. Accordingly, practitioners also can be aware of the multiple determinants of mindful parenting; for example, maintaining mindful parenting with "difficult" children may be more challenging, and those parents may be prone to respond less sensitively to their children (Ciciolla et al., 2013). As such, mindful parenting interventions focusing primarily on Self-Regulation in Parenting skills training may help those parents to deal with their child's negative emotionality better (Ciciolla et al., 2013; Kopala-Sibley et al., 2012). However, whether parents are

vulnerable to children's negative emotionality may depend on culture; thus, the content of mindful parenting intervention may vary across cultures alongside individuals.

Second, this thesis also implies that mindful parenting interventions may improve child behaviours across cultures, supporting the argument for a "universal" positive influence of mindful parenting on children's adjustment (Kabat-Zinn, 2005; McCaffrey et al., 2017). Moreover, this improvement may be more salient for children living in chaotic home environments, as higher mindful parenting may be a protective factor against the negative effect of household chaos on child adjustment. However, considering that the role of mindful parenting may be more prominent for UK child adjustment than their Turkish counterparts, it may be crucial to design culturally-sensitive mindful interventions (Yaman et al., 2010).

Third, this thesis expanded on previous mindful parenting research by incorporating multiple informants and multiple cultures. Taken all together, the results show that mindful parenting is multiply determined by parent characteristics, child characteristics, and family social environment regardless of the reporter, in turn, shaping child behaviours. Finally, the findings revealed that while there are certain similarities in the mindful parenting process across cultures, notable cultural differences stand out, as thoroughly discussed. Thus, I concluded that fostering more culturally sensitive, mindful parenting interventions for effective outcomes in diverse cultural backgrounds is necessary.

Strengths of the Current Thesis

Novel mindful parenting inventories.

Using multiple informants is considered the "gold standard" in developmental research and practice (Renk, 2005; Taber, 2010). However, existing research is limited to only one perspective focusing on parents' perceptions. As such, an important strength

of the current thesis is to develop and use the novel parallel parent- and child-reported mindful parenting inventories, MPIP/MPIC. The new inventories enabled Chapter 6 to separately explore the determinants of mother and child perceptions of mindful parenting and Chapter 7 to reduce reporter bias using MPIP/MPIC as indicators of the latent mindful parenting construct. The use of MPIP/MPIC to assess both parent and child perceptions in future mindful parenting research will also be necessary for (1) reducing bias and improving the accuracy of measures and findings, (2) specifying individual needs of parents and children, (3) gaining a complete understanding of mindful parenting, (4) uncovering discrepancies in perceptions, and thus (5) informing mindful parenting interventions. Accordingly, using MPIC along with MPIP and observations may be informative for ascertaining whether the observed changes in parent-reported mindful parenting truly indicate actual change or if they align with perceived changes reported by the children. Furthermore, by examining the association between mindful parenting reported by different informants and child behaviour, researchers can assess which perspective holds a greater influence on child outcomes and identify potential areas for intervention. Ultimately, these parallel inventories may facilitate the evaluation of mindfulness-based parenting interventions in improving mindful parenting from both parent and child perspectives, as is pertinent for child outcomes (Evans et al., 2018). Thus, the multi-information assessment of mindful parenting may allow mindful parenting practitioners to effectively address the needs of children and parents (Achenbach, 2011; Parent et al., 2014).

Cross-validation of MPIP/MPIC.

Cross-validation is an important procedure in psychometric research to ensure the reliability and validity of a measure across diverse samples or populations (Weathers et al., 1999). Chapter 4 and Chapter 5 of the current thesis not only involved the development of new inventories but also included a rigorous cross-validation process

across reporters and cultures, adding another significant strength to the thesis. Particularly, cross-validation of MPIP/MPIC factor structure across reporters was a significant strength because whether mindful parenting produces desired child outcomes largely depends on whether the child and parent share a similar understanding or perception of mindful parenting (Tein et al., 1994). Likewise, cross-validation of MPIP/MPIC to show the stability of its dimensionality across the UK and Türkiye served as an essential first step for cross-cultural research (Putnick & Bornstein, 2016). However, I caution researchers to remain aware of the potential presence of differential item functioning in Türkiye and welcome further thorough assessment of measurement invariance to enhance the validity and comparability of the measures (Byrne et al., 1989).

Cross-cultural research design

A further key strength of the current thesis is to examine culture-general and culture-specific aspects of the mindful parenting process for the first time, using a cross-cultural research design. The main importance of cross-cultural design lies in its ability to enhance our knowledge beyond the cultural context in which current parenting theories and models are developed, counteracting an ethnocentric perspective on the parenting process (Bornstein, 2013; Papayiannis & Anastassiou-Hadjicharalambous, 2011). However, to my knowledge, no other study has yet conducted simultaneous tests of the mindful parenting model across different cultures. As a result, the generalisability, validity, applicability, and potential biases of the mindful parenting model in different cultural contexts remain subjects of ongoing debate (*see* Chapter 3). Further research testing the mindful parenting model across cultures would help mitigate cultural biases and promote cultural sensitivity and awareness, thus developing culturally appropriate interventions. Cross-cultural studies on mindful parenting would

be particularly valuable, especially when adapting an existing intervention program proves more cost-effective than developing a new one (Lansford, 2022).

Limitations and future directions

Although there are several study strengths, not least the inclusion of child as well as parent perceptions of mindful parenting, I should acknowledge limitations.

Sample Size and Sampling

Sufficient sample size is critical for increasing statistical power, obtaining reliable and generalisable results, and reducing sampling error. In this thesis, I aimed to recruit a minimum of 100 parents and their children in each culture to obtain sufficient statistical power. Although I initially achieved this sample size, I excluded fathers from further analysis. The sample sizes of the remaining mothers and children in both the UK and Türkiye still yielded adequate power to conduct factor analysis on the final 18-item instrument, ensuring a minimum of 5-10 participants per item (Tinsley & Tinsley, 1987). However, the remaining dyadic UK sample ($n = 90$) was relatively small and unbalanced, potentially violating the assumption of homogeneity of variance and increasing the likelihood of Type I errors (Rusticus & Lovato, 2014). Relatedly, the retention rates of Türkiye-based mothers (38.1%) and their children (42.9%) were low; consequently, the test-retest reliabilities were not calculated. In addition, the sample sizes were insufficient to test a whole process model that simultaneously included the determinants and outcomes of mindful parenting. Consequently, I acknowledge that further studies with larger samples are warranted to examine more complex models of the mindful parenting process.

I also acknowledge that the findings may be somewhat limited by the homogeneity of the samples consisting of highly-educated mothers and their typically developed children aged 11-16 years. As such, further work is needed to generalise the

findings to fathers and more diverse families. In particular, comparing mothers and fathers is likely an important avenue for future work, particularly since mothers have been shown to have higher mindful parenting scores than fathers, at least from literature using self-report (e.g., Gouveia et al., 2016). It will also be of interest to consider whether child perceptions of mothers' and fathers' mindful parenting show a similar pattern and to test the potential differences between mindful mothering and the mindful fathering process (Cheung et al., 2021). Note that I invited both mothers and fathers; therefore, such homogeneity of the current samples as in previous studies (e.g., Kim et al., 2019; Lo et al., 2018; Moreira et al., 2018) may reflect that mothers are still primary caregivers of children. It seems that a specific recruitment effort targeted to fathers is needed to achieve a parenting role-balanced sample, in turn, to explore the mindful parenting process in fathers better (Adamsons & Buehler, 2007).

Moreover, it also should be noted that the patterns observed in the current sample may not necessarily apply to different populations due to the lack of representation of children from different developmental stages and SES in the current thesis. Although few studies indicated similarities in the associations of mindful parenting with parent and child characteristics as well as traditional parenting behaviours across child developmental stages (Parent et al., 2016a) and SES (Zhang et al., 2019), further research is needed to get sufficient evidence of the applicability of these findings to various child populations.

Finally, to date, only one study has been conducted to address this specific purpose, which revealed that there were similar associations between mindful parenting, parenting behaviours, and child emotional self-regulation across parents of children with attention-deficit/hyperactivity disorder and parents of typically developing children (Evans et al., 2020). Thus, although this thesis is influential in recognising the potential benefits of mindful parenting for typically developing children, I recommend that future

research investigate the process of the mindful parenting model across typically developing children and children with (neuro)developmental or mental health disorders.

In conclusion, it is crucial to obtain more diverse and heterogeneous samples to enhance confidence in the generalisability of findings and develop effective evidence-based strategies for promoting mindful parenting.

Single method

This study used dual-informant reports (i.e., mothers and children) of mindful parenting and child behaviours to reduce family-level response biases (Schofield et al., 2016). However, it is important to note that the data from multiple sources were collected using a single method (i.e., self-report measures within the same survey). Due to its inherent lack of objectivity, this approach still has potential limitations in providing a comprehensive understanding of the mindful parenting process being investigated. For example, as previously mentioned, parents, especially from relatively more collectivist cultures, such as Türkiye, may tend to self-report socially desirable parenting behaviours (Bernardi, 2006; Bornstein et al., 2015). Consequently, the cross-cultural comparisons must be interpreted with caution due to the presence of culture-level response biases in self-reports. In order to address these limitations, I recommend adopting a combination of multiple-method (self-reports and observations) and multiple-informant (parents, teachers, children) approaches for reducing potential biases in cross-cultural parenting research (Chen et al., 2019; Podsakoff et al., 2012). Another valuable avenue for future studies would include applying a temporal or proximal separation between the measures to control further for method bias (Podsakoff et al., 2012).

Cross-sectional design

The directions of the associations, whilst theory-driven, in practice remain arbitrary due to the cross-sectional nature of the current data. As discussed in their respective chapters, the relationships between mindful parenting and parent-child characteristics may exhibit bidirectionality, and they might even manifest in a direction contrary to the one I claimed. In addition, cross-sectional data offers limited insights into developmental dynamics. Consequently, additional research is necessary to establish causal links among the variables in the current study and explore how the associations of mindful parenting evolve over time and across different stages of child development.

Coronavirus Pandemic (COVID-19)

The data for this thesis were collected during the coronavirus pandemic. Consequently, although the initial intention was to collect paper-and-pen data, online data was obtained. It is important to acknowledge that the online data collection method may introduce certain biases, such as selection bias (Janssens & Kraft, 2012). As such, the population sampled may not accurately represent the target population due to potential limitations in accessing social media for some families (Andrade, 2020). Furthermore, the changes in family dynamics during the pandemic could potentially hinder the generalisability of the findings to non-pandemic periods. Therefore, conducting a replication of the study is recommended.

Conclusion

This thesis makes a pioneering contribution to our understanding of the mindful parenting process, filling significant gaps in the existing literature and setting a foundation for future research endeavours. Notably, it significantly contributes to the field by investigating mothers' and children's perceptions of mindful parenting using

the newly developed MPIP/MPIC for the first time in a sample of mothers and their children aged 11-16. This novel MPIP/MPIC thus expands our understanding of mindful parenting within this specific age group and sheds light on the unique perspectives of both mothers and their children.

This thesis examined mothers' and children's perceptions of mindful parenting in association with maternal dispositional mindfulness, traditional parenting, as well as child temperament, social support, maternal psychological distress, household chaos, and child behaviours across the UK and Türkiye. Theoretically, the findings underscore some key points of the mindful parenting model. First, the findings supported the differentiation of both mother- and child-reported mindful parenting from dispositional mindfulness and traditional parenting practices in both cultures and emphasised the salience of considering children's perceptions of mindful parenting. For example, considering the findings from Chapter 4 and Chapter 5 together, children's own perceptions of mindful parenting, rather than those of parents, may be more noteworthy for their outcomes, particularly in Türkiye.

Second, the findings also revealed that child temperament, social support, maternal psychological distress, and chaos play significant roles in shaping mindful parenting practices, which subsequently impact child behaviours regardless of the culture, with minor differences observed across the UK and Türkiye. However, exposure to household chaos under the condition of high mindful parenting did not necessarily lead to adverse child outcomes in the UK. This finding implies that mindful parenting can be particularly crucial, especially for children in chaotic households; thus, it points out the importance of promoting mindful parenting training for parents and children in such environments.

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Appendices

Appendix A The invitation flyers for the feasibility study

Goldsmiths
UNIVERSITY OF LONDON

PARENTS AND CHILDREN
RESEARCH PARTICIPANTS NEEDED!

ARE YOU THE PARENT OF A CHILD AGED 11–15 YEARS?

DO YOU AND YOUR CHILD HAVE 25 MINUTES TO HELP US?

We have designed a new questionnaire about parent-child relationships and we need your opinion! We are looking for 50 parents and children to complete the short questionnaire online, and to tell us what they thought of our questions.

IF YOU ARE FLUENT IN ENGLISH AND ARE THE PARENT OF A CHILD AGED 11–15 YEARS, DO GET IN TOUCH FOR MORE INFORMATION!

FOR MORE INFORMATION:

PRINCIPAL RESEARCHER: PINAR ACET (acet001@gold.ac.uk)

SUPERVISOR: DR BONAMY OLIVER

We are sorry, but we cannot include you at this time if you or your child have a history of a learning disability, (neuro)developmental or mental health disorder.

Appendix B The invitation flyers for the main study

LONDON'S GLOBAL UNIVERSITY

UCL

PARENTS AND THEIR CHILDREN OR YOUNG PEOPLE NEEDED FOR RESEARCH!

Are you the parent of an 11-16 year-old?

Would you like the chance to win one of two £50 Amazon vouchers?

Do you have 30 minutes to spare?

WE AIM TO UNDERSTAND PARENT AND YOUNG PEOPLE'S VIEWS OF PARENT-CHILD RELATIONSHIPS FOR MENTAL HEALTH AND WELLBEING. WE ARE LOOKING FOR 200 PARENTS AND THEIR 11-16 YEAR OLDS TO HELP US BY COMPLETING OUR QUESTIONNAIRES ONLINE.

IF YOU ARE LIVING IN THE UK, FLUENT IN ENGLISH, AND THE PARENT OF A CHILD AGED 11-16 YEARS, DO GET IN TOUCH FOR MORE INFORMATION!

PRINCIPAL RESEARCHER: PINAR ACET (pinar.acet.20@ucl.ac.uk)

SUPERVISOR: DR BONAMY OLIVER

WE ARE SORRY, BUT WE CANNOT INCLUDE YOU AT THIS TIME IF YOU OR YOUR CHILD HAVE A HISTORY OF A LEARNING DISABILITY, (NEURO)DEVELOPMENTAL OR MENTAL HEALTH DISORDER

LONDON'S GLOBAL UNIVERSITY

ᵾUCL

ARAŞTIRMAMIZA KATILACAK EBEVEYN VE ÇOCUKLARA İHTİYACIMIZ VAR!

11-16 yaş aralığındaki en az bir çocuğun ebeveyni misiniz?

50 veya 100 Türk Lirası değerinde D&R hediye kuponlarından birini kazanma şansı yakalamak ister misiniz?

EBEVEYN-ÇOCUK İLİŞKİLERİ ÜZERİNE YÜRÜTTÜĞÜMÜZ

DOKTORA PROJEMİZE KATILACAK 250 EBEVEYN VE ÇOCUĞA

ULAŞMAYA ÇALIŞIYORUZ.

ÇEVRİMİÇİ (ONLINE) ANKETLERİMİZİ DOLDURARAK BİZE

YARDIMCI OLABİLİRSİNİZ.

TÜRKİYE'DE YAŞIYORSANIZ, TÜRKÇE OKUMA-YAZMA BİLİYORSANIZ VE 11-16 YAŞLARINDA BİR ÇOCUĞUN EBEVEYNİ İSENİZ, LİNKİ TIKLAYARAK VEYA SAĞ ALT KÖŞEDEKİ KAREKODU OKUTARAK ARAŞTIRMAYA KATILABİLİRSİNİZ.

Ebeveyn ölçeklerinin doldurulması yaklaşık 25 dakika, çocuklarınki ise 15 dakika almaktadır.

DİLERSENİZ DAHA FAZLA BİLGİ İÇİN BİZİMLE İLETİŞİME GEÇEBİLİRSİNİZ!

Araştırmacı: Pınar Acet
(pinar.acet.20@ucl.ac.uk)
Danışman: Dr Bonamy Oliver

ÜZGÜNÜZ Kİ, ÇALIŞMANIN AMACI KAPSAMINDA ÖĞRENME GÜÇLÜĞÜ, (NÖRO) GELİŞİMSEL VEYA RUH SAĞLIĞI BOZUKLUĞU OLAN ÇOCUKLARI VE EBEVEYNLERİNİ ÇALIŞMAYA DAVET EDEMİYORUZ.

Appendix C Participant information sheet for parents in the feasibility study

Participant Information Sheet

Understanding Parent and Child Relationships

If you have any questions at all, please do not hesitate to contact us!

Principal Researcher: Pınar Acet, Department of Psychology, Goldsmiths, University of London, pacet001@gold.ac.uk

Supervisor: Dr Bonamy Oliver, Department of Psychology, Goldsmiths, University of London, b.oliver@gold.ac.uk

You and your child are being invited to take part in a research study. Before you decide whether to take part, it is important for you both to understand why the research is being conducted and what it will involve. Please take time to read the following information carefully and discuss it with your child. You can, of course, also talk to others if you wish. If you would like more information or if there are any concerns, please contact us.

Thank you for considering taking part and reading this information sheet carefully!

What is the purpose of the study?

Research has indicated that mindful parenting is associated with reduced stress in parents and improved parent-child relationships, which in turn can contribute to psychological well-being of both parents and children. However, little research attention has been given to the simultaneous assessment of mindful parenting from both parent and child perspectives.

This PhD project aims to develop a new questionnaire to collect information about both parent and child perceptions of mindful parenting in the home. The current phase of the project is to find out whether our questions are acceptable and straightforward for parents and children to answer.

Why have we been invited to participate?

Parents and their children aged 11 to 15 years old are being invited to participate in this study. We aim to reach approximately 50 parent-child dyads in this first project stage.

Do we have to take part?

No! Participation is entirely voluntary. It is up to you and your child to decide whether or not to take part. If you decide to do so, you will be given this information sheet to

keep, and we will ask you to provide your consent. We will also ask your child to confirm her/his assent.

Can we withdraw from the study?

Yes! Even if you and/or child decide to take part, you can opt-out or withdraw from the study at any time during data collection without giving any reason and without any consequences.

If you or your child decide to withdraw from the study, you will be asked what you want to happen to any data that you have provided up to that point. Please note that after the end of the data-collection period, anonymised data can no longer be removed from the study as analyses will be underway. However, we can assure you that all data will be completely confidential and anonymous, and you will not be contacted further if you withdraw.

What will happen if we take part?

Once we have your consent and your child's assent, you will each be asked to complete a short questionnaire, including our new measure of mindful parenting and your feedback on this measure. The questionnaire will take approximately 25 minutes to complete. If you are willing, two weeks later, you and your child will be contacted by the researcher to complete the questionnaire again. All data will be stored anonymously.

What are the possible disadvantages of taking part?

We foresee no significant risk or disadvantages to participation in the study. However, if you or your child experience any distress or feel that you do not want to continue, you can withdraw at any time without giving a reason and without consequence.

What are the possible benefits of taking part?

In our experience, parents and children often find projects like this interesting and enjoy answering our questions. The information you provide will help us to improve our assessment of perspectives of mindful parenting and contribute to future family research.

Will what we tell you be kept confidential?

Yes. All of the information you and your child provide will be kept strictly confidential, in full compliance with data protection legislation. Your data will be stored anonymously, and only researchers will access the data provided.

Limits to confidentiality.

Confidentiality will be respected subject to legal constraints and professional guidelines. Please note that assurances on confidentiality will be strictly adhered to unless evidence of wrongdoing or potential harm to you or your child is uncovered. In such cases, Goldsmiths may be obliged to contact relevant statutory bodies or agencies.

What will happen to the results of the research study?

The results of the study will be used in a PhD dissertation and in publications, reports, web pages, and other research outputs. If the research is published, you will not be identifiable in any way.

Who is organising and funding the research?

This research has been organised by Goldsmiths, University of London and has been approved by Goldsmiths, University of London, Department of Psychology Ethics Committee. The project is funded by the Republic of Turkey Ministry of National Education.

What if something goes wrong?

If you have any concerns about your family's participation or about the study in general, you should first contact the PhD Researcher (Pinar Acet, pacet001@gold.ac.uk) or the supervisor (Dr Bonamy Oliver (b.oliver@gold.ac.uk). If you feel your complaint has not been satisfactorily handled, please contact the Chair of the Goldsmiths Research Ethics and Integrity Sub-Committee via Research Services (020 7919 7770, reisc@gold.ac.uk).

Thank you for reading this information sheet and for considering whether to take part in this research study.

Please click NEXT for information regarding the General Data Protection Regulation (GDPR), and our consent form. We can't include you in our study if you don't complete the consent form.

<div align="center">**Thank you again!**</div>

The General Data Protection Regulation [GDPR] and Goldsmiths Research: guidelines for participants

Please note that this document does not constitute, and should not be construed as, legal advice. These guidelines are designed to help participants understand their rights under GDPR which came into force on 25 May 2018.

Your rights as a participant (data subject) in this study

The updated data protection regulation is a series of conditions designed to protect an individual's personal data. Not all data collected for research is personal data.

Personal data is data such that a living individual can be identified; collection of personal data is sometimes essential in conducting research and GDPR sets out that data subjects should be treated in a lawful and fair manner and that information about the data processing should be explained clearly and transparently. Some data we might ask to collect falls under the heading of **special categories data**. This type of information includes data about an individual's race; ethnic origin; politics; religion; trade union membership; genetics; biometrics (where used for ID purposes); health; sex life; or sexual orientation. This data requires particular care.

Under GDPR you have the following rights over your personal data[1]:

- **The right to be informed**. You must be informed if your personal data is being used.

- **The right of access**. You can ask for a copy of your data by making a 'subject access request'.

- **The right to rectification.** You can ask for your data held to be corrected.

- **The right to erasure**. You can ask for your data to be deleted.

- **The right to restrict processing**. You

- **The right to data portability**. You have the right to get your personal data from an organisation in a way that is accessible and machine-readable. You also have the right to ask an organisation to transfer your data to another organisation.

- **The right to object**. You have the right to object to the use of your personal data in some circumstances. You have an absolute right to object to an organisation using your data for direct marketing.

- **How your data is processed using automated decision making and profiling**. You have the right not to be subject to a decision that is based solely on automated processing if the decision affects your legal rights or other equally important matters; to understand the reasons behind decisions made about you by automated processing and the possible consequences of the decisions, and to object to profiling in certain situations, including for direct marketing purposes.

Please note that these rights are not absolute and only apply in certain circumstances. You should also be informed how long your data will be retained and who it might be shared with.

How does Goldsmiths treat my contribution to this study?

Your participation in this research is very valuable and any personal data you provide will be treated in confidence using the best technical means available to us. The university's legal basis for processing your data[2] as part of our research findings is a "task carried out in the public interest". This means that our research is designed to improve the health, happiness and well-being of society and to help us better understand the world we live in. It is not going to be used for marketing or commercial purposes.

In addition to our legal basis under Article 6 (as described above), for **special categories data** as defined under Article 9 of GDPR, our condition for processing is that it is "necessary for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes".

If your data contributes to data from a group then your ability to remove data may be limited as the project progresses, when removal of your data may cause damage to the dataset.

You should also know that you may contact any of the following people if you are unhappy about the way your data or your participation in this study are being treated:

Goldsmiths Data Protection Officer – dp@gold.ac.uk (concerning your rights to control personal data). Chair, Goldsmiths Research Ethics and Integrity Sub-Committee - via reisc@gold.ac.uk REISC Secretary (for any other element of the study). You also have the right to lodge a complaint with the Information Commissioner's Office at https://ico.org.uk/make-a-complaint/

This information has been provided by the Research Ethics and Integrity Sub-Committee with advice from the Research Services and Governance and Legal Teams. Version: 13 August 2018

1 https://ico.org.uk/your-data-matters/

2 GDPR Article 6; the six lawful bases for processing data are explained here: https://ico.org.uk/for-organisations/guide-to-the-general-data- protection-regulation-gdpr/lawful-basis-for-processing/

3 Article 9 of the GDPR requires this type of data to be treated with great care because of the more significant risks to a person's fundamental rights and freedoms that mishandling might cause, eg, by putting them at risk of unlawful discrimination.

Appendix D. Participant information sheet for parents in the main study

<div align="center">

Participant Information Sheet for Parents

Understanding Parent-Child Relationships

If you have any questions at all, please do not hesitate to contact me!

</div>

PhD Researcher: Pınar Acet, Department of Psychology and Human Development, UCL Institute of Education, University College London, UK, pinar.acet.20@ucl.ac.uk

Supervisor: Dr Bonamy Oliver, Department of Psychology and Human Development, UCL Institute of Education, University College London, UK, b.oliver@ucl.ac.uk

You and your child are being invited to take part in a PhD student research project. In this research, I am hoping to understand parent-child relationships from the viewpoint of both parents and children. Before you decide whether to take part, it is important for you both to understand why the research is being conducted and what it will involve. Please take time to read the following information carefully and discuss it with your child. You can, of course, also talk to others if you wish. If you would like more information or if there are any concerns, please contact me.

Thank you for considering taking part and reading this information sheet carefully!

What is the purpose of the study?

First, I aim to collect information from parents and children about their relationship using a new questionnaire that I have designed. Secondly, I would like to explore how relationship relates to parent and child wellbeing.

Why have we been invited to participate?

Parents and their children aged 11 to 16 years old, living with you full-time in the UK and who are either native English speakers or fluent in English are being invited to participate in this study. I aim to reach approximately 250 parent-child dyads.

I am sorry, but I cannot include you at this time if you or your child have a history of a learning disability, (neuro) developmental or mental-health disorder.

Do we have to take part?

No! Participation is entirely voluntary. It is up to you and your child to decide whether or not to take part. If you decide to do so, you may keep this information sheet, and I will ask you to provide your consent. I will also ask your child to confirm her/his assent to take part.

Can we withdraw from the study?

Yes! Even if you and/or child decide to take part, you can opt-out or withdraw from the study at any time during data collection without giving any reason and without any consequences. You can still withdraw your data after you have participated. Please note that after the end of the data-collection period, data can no longer be removed from the study as analyses will be underway. However, I assure you that all data will be completely confidential and anonymous, and you will not be contacted further if you withdraw.

What will happen if we take part?

Once I have your consent and your child's assent, you will each be asked to answer a questionnaire online. These will take approximately 40 minutes for you and 20 minutes for your child to complete. I kindly ask that you and your child complete the questionnaires separately. I will ask you for your e-mail address and mobile phone number at the beginning of the questionnaire so that I can contact you to take part once more in a follow-up questionnaire four months later.

What are the possible benefits of taking part?

In my experience, parents and children often find projects like this interesting and enjoy answering the questions. The information you provide will help us improve our understanding of parent-child relationships and contribute to future family research.

Will I receive any payment for taking part in this study?

No, you will not be paid for participation. However, once you and your child complete each questionnaire, you will be eligible to enter a prize draw where you will have the chance to win one of two Amazon vouchers worth £50, and your child to enter a prize draw for the chance to win one of two Amazon vouchers worth £25! Your child's voucher will be sent to you.

What are the possible disadvantages of taking part?

I foresee no significant risk or disadvantages to participation in the study. However, if you or your child experience any distress or feel that you do not want to continue, you can withdraw at any time without giving a reason and without consequence.

What will happen to the results of the research study?

The results of the study, without any identifying information about the families, will be used in a PhD dissertation and in scientific publications, reports and other research

outputs. If the research is published, you will not be identifiable in any way. The data will not be made available to any commercial organisations.

Will what we tell you be kept confidential?

Yes. All of the information you and your child provide will be kept strictly confidential, in full compliance with data protection legislation. Your data will be stored anonymously. This means the personal information that can identify you, such as your e-mail address and mobile phone number, will not be matched to any non-identifying data you provide. All personally identifiable information will be deleted 12 months after the data collection has concluded. Other authenticated researchers can use only anonymised data for future research. No one will be able to identify you when this data is shared.

Limits to confidentiality.

Confidentiality will be respected subject to legal constraints and professional guidelines. Please note that assurances on confidentiality will be strictly adhered to unless evidence of wrongdoing or potential harm to you or your child is uncovered. In such cases, UCL may be obliged to contact relevant statutory bodies or agencies.

Who is organising and funding the research?

This research has been organised by UCL Institute of Education, University College London and has been reviewed and approved by the UCL IOE Research Ethics Committee. The PhD researcher is funded by the Republic of Turkey Ministry of National Education.

Data Protection Privacy Notice

The controller for this project will be University College London (UCL). The UCL Data Protection Officer provides oversight of UCL activities involving the processing of personal data and can be contacted at data-protection@ucl.ac.uk.

This 'local' privacy notice sets out the information that applies to this particular study. Further information on how UCL uses participant information from research studies can be found in our 'general' privacy notice for participants in research studies here.

The information that is required to be provided to participants under data protection legislation (GDPR and DPA 2018) is provided across both the 'local' and 'general' privacy notices. The lawful basis that will be used to process any personal data is:

'Public task' for personal data and 'Research purposes' for special category data. I will be collecting personal data, such as e-mail address and contact number.

Your personal data will be processed so long as it is required for the research project. If I am able to anonymise or pseudonymise the personal data you provide, I will undertake this and will endeavour to minimise the processing of personal data wherever possible.

If you are concerned about how your personal data is being processed, or if you would like to contact someone about your rights, please contact UCL in the first instance at dataprotection@ucl.ac.uk.

Thank you very much for taking the time to read this information sheet!

Appendix E Study consent forms for parents in the feasibility study

Informed Consent Form - Mindful Parenting Inventory

Thank you for completing this form. Without this evidence of your consent, we cannot include you in our study!

Please tick the appropriate boxes

	Yes	No
Taking part in the study		
I confirm that I am over 18 years old.	○	○
I have read and understood the study information, or it has been read to me. I have been able to ask questions about the study, and my questions have been answered to my satisfaction.	○	○
I confirm that neither myself nor the child to be involved in the study have a known or suspected learning disability, (neuro)developmental or mental-health disorder	○	○
I consent voluntarily for my child and I to be participants in this study and understand that we can refuse to answer questions or withdraw from the study at any time, without having to give a reason.	○	○
I understand that if we decide to withdraw, anonymised data can no longer be removed from the study after the end of the data collection period.	○	○
I understand that taking part in the study involves my child and I completing a new questionnaire and providing feedback about the questionnaire.	○	○
I understand that my child and I will be contacted by the researcher to complete the questionnaire again two weeks later.	○	○
Use of the information in the study		
I understand that the information we provide will be used for a PhD dissertation, publications, reports, web pages, and other research outputs and that the confidentiality of the information we provide will be preserved.	○	○
I understand that personal information collected about me and my child that can identify us, such as our names and email address or where we live, will not be shared beyond the PhD researcher and supervisors.	○	○

	Yes	No

Future use and reuse of the information by others

I give permission for the anonymised information that we provide to be deposited in the University's data store so it can be used for future research and learning, and that this will not include any personal information. ○ ○

I agree that we can be quoted in research outputs (without any of identifying information). ○ ○

Now, please put your email address in the box below, so that we can send you a link to the questionnaire for your child to complete.

_____

Thank you!

Appendix F. Study consent forms for parents in the main study

<div align="center">

Informed Consent Form for Parents

</div>

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

Title of Study: Understanding Parent-Child Relationships

Department: Department of Psychology and Human Development

Name and Contact Details of the Researcher(s): Pınar Acet, Department of Psychology and Human Development, UCL Institute of Education, University College London, UK, pinar.acet.20@ucl.ac.uk

Name and Contact Details of the Principal Researcher: Dr Bonamy Oliver, Department of Psychology and Human Development, UCL Institute of Education, University College London, UK, b.oliver@ucl.ac.uk

Name and Contact Details of the UCL Data Protection Officer: Alex Potts, a.potts@ucl.ac.uk

This study has been approved by the UCL Research Ethics Committee: Project ID number: Z6364106/2021/01/43 social research

Thank you for considering taking part in this research. The person organising the research must explain the project to you before you agree to take part. If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you decide whether to join in.

I confirm that I understand that by ticking each box I am consenting to that element of the study. I understand that it will be assumed that unticked boxes means that I DO NOT consent to that part of the study. I understand that by not giving consent for any one element, I may be deemed ineligible for the study.

Item number		Tick Box
1.	I have read and understood the Information Sheet and have had an opportunity to consider what the study involves, as well as to ask questions and have them answered to my satisfaction.	
2.	I confirm that neither myself nor the child to be involved in the study have a known or suspected learning disability, (neuro)developmental or mental-health disorder	
3.	I understand that I will be contacted again after four months for our participation in follow-up questionnaires. I understand that the completion of the follow-up questionnaire is not necessary in order for us to complete the first questionnaire.	
4.	I consent for my child and I to be participants in this study. I understand that participation is voluntary and that we are free to withdraw at any time until the end of the data collection period without giving a reason.	
	Data and Confidentiality	
5.	I understand that my personal information (e.g. e-mail address and contact number) will be used for the purposes explained to me, will remain confidential, and that all efforts will be made to ensure I cannot be identified unless evidence of wrongdoing or potential harm is uncovered. All personal information will be deleted 12 months after the data collection period.	
6.	I understand that the data gathered in this study will be stored anonymously and securely. It will not be possible to identify me in any publications.	
7.	I understand that my anonymised research data may be used by other authenticated researchers for future research. [No one will be able to identify you when this data is shared.]	
8.	I understand that the data will not be made available to any commercial organisations and is solely the responsibility of the researcher(s) undertaking this study.	
	Risks and Benefits	
9.	I understand risk is minimal, but the support that will be available to me should I become distressed during the course of the research.	
10.	I am aware of who I should contact if I wish to lodge a complaint.	

Appendix G Assent forms for children in the feasibility study

<div align="center">

Assent for Children's Participation in Research

</div>

You are being invited to take part in a research study. Your mother/father will have already explained the study to you.

We will ask you some questions about your mother/father using an online questionnaire. We will also ask your opinion about the questions we are asking. For example, we will ask if you found any of our questions difficult to understand. Two weeks later, we will ask you to answer the questionnaire again.

You do not have to take part if you do not want to. You can change your mind about taking part at any time without saying why. If you withdraw from the study, it will not have any consequence in the future.

If you have any questions, you can contact us at any time. Email Pınar Acet at pacet001@gold.ac.uk or Dr Bonamy Oliver b.oliver@gold.ac.uk.

Thank you very much!

This part should be endorsed by the child!*Please tick the appropriate boxes*	Yes	No
I have been informed about the study and my right to withdraw.	☐	☐
I understand what I am being asked to do.	☐	☐
I would like to take part in this study.	☐	☐

Appendix H Assent forms for children in the main study

<div align="center">

Assent for Children's Participation in Research

</div>

You are being invited to take part in a research study. Your parent will have already explained the study to you.

We are a team of researchers at UCL Institute of Education, University College London, studying parent-child relationships. We will ask you some questions about you and your parent using an online questionnaire. Four months later, we will ask you to answer the questionnaire again.

You do not have to take part if you do not want to. You can change your mind about taking part at any time without saying why. If you withdraw from the study, it will not have any consequences in the future.

If you have any questions, you can contact me at any time—email Pınar Acet at pinar.acet.20@ucl.ac.uk

If you would like additional support, please see the following organisation that may be able to help.

Childline: Childline is a counselling service for children and young people up to their 19th birthday in the United Kingdom provided by the NSPCC https://www.childline.org.uk/

Thank you very much! Before you take part, we need you to answer the boxes below to confirm that you understand what taking part means:

Please tick the appropriate boxes	Yes	No
I have been told about the study and my right to withdraw.	o	o
I understand what I am being asked to do.	o	o
I would like to take part in this study.	o	o

Appendix I Debriefing information form for the feasibility study

Debriefing Information – The Mindful Parenting Inventories for Parents and Children

We would like to take this opportunity to say **Thank You** for taking the time to answer our questionnaire.

Mindful parenting has been associated with reduced stress in parents and improved parent-child relationships, which in turn can contribute to psychological well-being of both parents and children.

In this study, we aim to gain a better understanding of parent-child relationships from both perspectives. The completed research will help us to improve our assessment of mindful parenting and contribute to future family research.

If you were unduly or unexpectedly affected by taking part in the study please feedback to the researcher. If for any reason you feel unable to talk with the researcher please contact the supervisor. If you would like additional support, please see the following organisations that may be able to help.

Principal Researcher: Pınar Acet, Department of Psychology, Goldsmiths, University of London, pacet001@gold.ac.uk

Supervisor: Dr Bonamy Oliver, Department of Psychology, Goldsmiths, University of London, b.oliver@gold.ac.uk

Family Action – provides practical, emotional and financial support to those who are disadvantaged, socially isolated, or living in poverty, across the UK.

https://www.family-action.org.uk/

The Samaritans - A free, confidential helpline and email address where you can talk to someone about anything big or small, 24 hours a day, 7 days a week.

https://www.samaritans.org/

Mind – Advice and support to anyone experiencing a mental health problem.

https://www.mind.org.uk/

Young Minds – A helpline for parents who are worried about their children's mental health.

https://youngminds.org.uk/

Place2be – Provides resources to parents support the wellbeing and mental health of their children

https://www.place2be.org.uk/

Appendix J Debriefing information form for the main study

<div align="center">

Debriefing Information for Parents

Understanding Parent-Child Relationships

</div>

I would like to take this opportunity to say **thank you** for taking the time to answer my questionnaires. Without you, and people like you, my research couldn't exist!

In this project, I aim to validate a new questionnaire to collect information about parent-child relationships from the point of view of parents and children, and to consider the importance of these relationships for well-being. The completed research will help me to improve our knowledge of parents and children, and will contribute to future family research.

If you were unduly or unexpectedly affected by taking part in the study, please feel free to feedback to the PhD researcher in the first instance. If for any reason you feel unable to talk with the researcher, please contact the supervisor. If you would like additional support, please see the following organisations that may be able to help.

PhD Researcher: Pınar Acet, Department of Psychology and Human Development, UCL Institute of Education, University College London, UK, pinar.acet.20@ucl.ac.uk

Supervisor: Dr Bonamy Oliver, Department of Psychology and Human Development, UCL Institute of Education, University College London, UK, b.oliver@ucl.ac.uk

Family Action – provides practical, emotional and financial support to those who are disadvantaged, socially isolated, or living in poverty, across the UK.

https://www.family-action.org.uk/

The Samaritans - A free, confidential helpline and email address where you can talk to someone about anything big or small, 24 hours a day, 7 days a week.

https://www.samaritans.org/

Mind – Advice and support to anyone experiencing a mental health problem.

https://www.mind.org.uk/

Young Minds – A helpline for parents who are worried about their children's mental health.

https://youngminds.org.uk/

Place2be – Provides resources to parents support the well-being and mental health of their children

https://www.place2be.org.uk/

Appendix K Demographic information form for the feasibility study

SOCIODEMOGRAPHIC INFORMATION FORM

Please create your own unique reference number and take a note of it. Your child will be asked to enter this reference number when they complete their questionnaire as final confirmation of your consent.

In the box below, enter the month of your birthday, followed by the first and last letter of your first name. For example, if your birthday is 12th February, and your name is Amelia, you would enter: 02aa

_____

What gender do you identify as?

_____

What is your age? (years)

_____

What is your highest level of educational qualification? (If currently studying, enter the level you have already achieved)

- ☐ No formal education
- ☐ Primary school
- ☐ GCSEs or equivalent
- ☐ A-Levels or equivalent
- ☐ University undergraduate degree (e.g., BA or BSc)
- ☐ University postgraduate degree (e.g.,MA, MSc) or postgraduate certificate or diploma (e.g., PGCE)
- ☐ Doctoral degree (PhD)
- ☐ Other _____
- ☐ Prefer not to answer

What is your annual household income?

- ☐ Less than £20,000
- ☐ £20,000-£39,999
- ☐ £40,000-£59,999
- ☐ £60,000-£79,999
- ☐ More than £80,000
- ☐ Prefer not to answer

What is your ethnicity?

- ☐ White/White British
- ☐ Asian/Asian British
- ☐ Black/Black British
- ☐ Mixed/Multiple
- ☐ Other (please explain) _____
- ☐ Prefer not to answer

What is your marital status?

- ☐ Married - living together
- ☐ Married - living apart
- ☐ Divorced
- ☐ Widowed
- ☐ Cohabiting
- ☐ Single
- ☐ Other (please explain) _____
- ☐ Prefer not to answer

How many children aged between 11 and 15 years old do you have?

- ☐ Only one child
- ☐ Two or more

If you have more than one child aged between 11 and 15 years old, please complete the following questions only about the child you have asked to take part in the research.

(Note that if you have more than one child aged between 11 and 15 years old that would like to take part, please contact us directly).

What is the date of birth of your child? (e.g., March 29th, 2007)

_____

What gender does your child identify as?

_____

What is your relationship with your child?

- ☐ Birth mother
- ☐ Adoptive/foster mother
- ☐ Birth father
- ☐ Adoptive/foster father
- ☐ Other (please explain) _____

Are you living together with your child?

- ☐ Yes
- ☐ No
- ☐ Other (please explain) _____
- ☐ Prefer not to answer

Appendix L Demographic information form for the main study

<p style="text-align:center;">**SOCIODEMOGRAPHIC INFORMATION FORM**</p>

Please put your email address and contact phone number in the box below, so that we can send you a link to the questionnaire for your child to complete and contact you for the follow up study.

Email:

Contact number:

Now, please create your own unique reference number and take a note of it. Your child will be asked to enter this reference number when they complete their questionnaire as a final confirmation of your consent for them to do so.

In the box below, enter the month of your birthday, followed by the first and last letter of your first name. For example, if your birthday is 12th February, and your name is Amelia, you would enter: 02aa

1. **What is your age? (years) ----**
2. **What gender do you identify as? ----**
3. **What country do you live in? ----**
4. **What is your ethnicity?**
   - ☐ White/White British
   - ☐ Asian/Asian British
   - ☐ Black/Black British
   - ☐ Mixed/Multiple
   - ☐ Ethnicity not listed (please explain)
   - ☐ Prefer not to answer

5. **What is your highest level of educational qualification? (If currently studying, enter the level you have already achieved)**
   - ☐ No formal education
   - ☐ Primary school
   - ☐ GCSEs or equivalent
   - ☐ A-Levels or equivalent
   - ☐ University undergraduate degree (e.g., BA or BSc)
   - ☐ University postgraduate degree (e.g.,MA, MSc) or postgraduate certificate or diploma (e.g., PGCE)
   - ☐ Doctoral degree (PhD)
   - ☐ Other
   - ☐ Prefer not to answer

6. Are you married to and/or living with a partner?

- ☐ Yes
- ☐ No
- ☐ Prefer not to say

If NO

Are you:

- ☐ Single and never married
- ☐ Divorced or separated
- ☐ Widowed
- ☐ Other (please explain)
- ☐ Prefer not to say

7. How many children do you have?-----

If you have more than one child aged between 11 and 16 years old, please complete the following questions only about the child you have asked to take part in the research. (Note that if you have more than one child aged between 11 and 16 years old that would like to take part, please contact us directly).

8. What is your child's age? (years) ----

9. What gender does your child identify as? ----

10. What is your relationship with your child?

- ☐ Birth mother
- ☐ Adoptive/foster mother
- ☐ Birth father
- ☐ Adoptive/foster father
- ☐ Other (please explain)
- ☐ Prefer not to answer

11. Are you living together with your child?

- ☐ Yes, full-time
- ☐ Yes, part-time
- ☐ No

Appendix M Macarthur Scale of Subjective Social Status

Think of this ladder as representing where people stand in the United Kingdom.
At the top of the ladder are the people who are the best off – those who have the most money, the most education, and the most respected jobs. **At the bottom** are the people who are the worst off – those who have the least money, least education, the least respected jobs, or no job. The higher up you are on this ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

Where would you place yourself on this ladder?
Please select a number on the rung where you think you stand at this time in your life relative to other people in the United Kingdom/Türkiye and **enter the number in the box below.**

Appendix N 45-item Mindful Parenting Inventories for Parents and Children

MINDFUL PARENTING INVENTORY FOR PARENTS

The following are a number of statements about you. We want to know how you think you typically behave towards your child.

Read each item and tell us how <u>true it is for you</u>.

For example:

Never true
Rarely true
Sometimes true
Often true
Always true

PLEASE TRY TO ANSWER ALL THE QUESTİONS CAREFULLY.

After responding to each item, we will ask you to rate how easy the statement was to understand.

There will be a chance for you to give additional suggestions/feedback at the end of the questionnaire.

Please continue until your responses are recorded.

1. I notice the changes in my child's mood.
2. My tone of voice is calm and gentle when I am giving my child a warning.
3. I have difficulty forgiving my child if she/he has hurt my feelings.
4. I try to see things from my child's point of view.
5. I listen to my child with one ear because I am busy thinking about something else.
6. I give my child space to calm down when she/he is angry.
7. I quickly become defensive when my child and I argue.
8. I understand why my child feels the way she/he does.
9. If I cannot listen to my child immediately for some reason, I explain why.
10. I am easily distracted when my child and I are doing things together.
11. I accept that my child has opinions that are different from mine.
12. I keep reminding my child of her/his past mistakes.
13. I am aware of what my child needs from me as a parent.
14. I tell my child how I am feeling rather than leaving her/him to guess.
15. I give my child the tenderness she/he needs when she/he is going through a hard time.
16. I listen carefully to my child's ideas, even when I disagree with them.
17. When my child is excited about something, I feel her/his excitement too.
18. I get carried away with my own feelings when my child and I argue.
19. I understand what my child is thinking, even when she/he does not tell me.
20. I am patient with my child.
21. I answer before listening to my child properly.
22. I fully focus on the activities my child and I are doing together.
23. I get annoyed easily if my child interrupts me while I am doing something else.
24. I accept my child exactly as she/he is.
25. I am kind towards my child when she/he is upset.

26. I disapprove of my child's thoughts or feelings.
27. I allow my child to express her/his feelings.
28. I keep arguing the same old issues with my child.
29. I understand how my child feels just by looking at her/him.
30. I listen curiously to what my child is telling me.
31. I refuse to talk to my child when I am cross with her/him.
32. I rush through activities with my child without really paying attention to her/him.
33. I have difficulty calming down after my child and I have argued.
34. My child needs to call out to me a few times to make me notice her/him even if we are in the same room.
35. I leave space for my child to speak.
36. I apologise when I have acted in some way that hurts my child's feelings.
37. I tell my child what I think of her/him.
38. When my child is sad, I feel her/his sadness too.
39. When my child is with me, I let her/him be her/himself.
40. When I am upset with my child, I calmly tell her/him how I feel.
41. I am cold-hearted towards my child when she/he is struggling.
42. I am tolerant of my child's imperfections.
43. I take out my frustration on my child even when it is not about her/him.
44. I listen to my child without judging or criticising her/him.
45. I understand why my child behaves the way she/he does.

MINDFUL PARENTING INVENTORY FOR CHILDREN (MPIC)

The following are a number of statements about your mother/father. We want to know how you think your mother/father typically behaves towards you.

Read each item and tell us how true it is for your mother/father.

For example:

Never true
Rarely true
Sometimes true
Often true
Always true

PLEASE TRY TO ANSWER ALL THE QUESTİONS CAREFULLY.

After responding to each item, we will ask you to rate how easy the statement was to understand.

There will be a chance for you to give additional suggestions/feedback at the end of the questionnaire.

1. My mother/father notices the changes in my mood.
2. My mother's/father's tone of voice is calm and gentle when she/he is giving me a warning.
3. My mother/father has difficulty forgiving me if I have hurt her feelings.
4. My mother tries to see things from my point of view.
5. My mother/father listens to me with one ear because she/he is busy thinking about something else.
6. My mother/father gives me space to calm down when I am angry.
7. My mother/father quickly becomes defensive when we argue.
8. My mother/father understands why I feel the way I do.
9. If my mother/father cannot listen to me immediately for some reason, she/he explains why.
10. My mother/father is easily distracted when we are doing things together.
11. My mother/father accepts that I have opinions that are different from hers/his.
12. My mother/father keeps reminding me of my past mistakes.
13. My mother/father is aware of what I need from her as a parent.
14. My mother/father tells me how she/he is feeling rather than leaving me to guess.
15. My mother/father gives me the tenderness I need when I am going through a hard time.
16. My mother/father listens carefully to my ideas, even when she/he disagrees with them.
17. When I am excited about something, my mother/father feels my excitement too.
18. My mother/father gets carried away with her own feelings when we argue.
19. My mother/father understands what I am thinking, even when I do not tell her.
20. My mother/father is patient with me.
21. My mother/father answers before listening to me properly.
22. My mother/father fully focuses on the activities we are doing together.
23. My mother/father gets annoyed easily if I interrupt her while she/he is doing something else.
24. My mother/father accepts me exactly as I am.

25. My mother/father is kind towards me when I am upset.
26. My mother/father disapproves of my thoughts or feelings.
27. My mother/father allows me to express my feelings
28. My mother/father keeps arguing the same old issues with me.
29. My mother/father understands how I feel just by looking at me.
30. My mother/father listens curiously to what I am telling her.
31. My mother/father refuses to talk to me when she/he is cross with me.
32. My mother/father rushes through activities with me without really paying attention to me.
33. My mother/father has difficulty calming down after we have argued.
34. I need to call out to my mother/father a few times to make her notice me even if we are in the same room.
35. My mother/father leaves space for me to speak.
36. My mother/father apologises when she/he has acted in some way that hurts my feelings.
37. My mother/father tells me what she/he thinks of me.
38. When I am sad, my mother/father feels my sadness too.
39. When I am with my mother/father, she/he lets me be myself.
40. When my mother/father is upset with me, she/he calmly tells me how she/he feels.
41. My mother/father is cold-hearted towards me when I am struggling.
42. My mother/father is tolerant of my imperfections.
43. My mother/father takes out her frustration on me even when it is not about me.
44. My mother/father listens to me without judging or criticising me.
45. My mother/father understands why I behave the way I do.

Appendix O 25-item Mindful Parenting Inventories for Parents and Children

MINDFUL PARENTING INVENTORY FOR PARENTS (MPIP)

The following are a number of statements about you. We would like to know how you think you typically behave towards your child.

Read each item and tell us how <u>true it is for you.</u>
For example:
Never true
Rarely true
Sometimes true
Often true
Always true

PLEASE TRY TO ANSWER ALL THE QUESTİONS CAREFULLY.

1. I quickly become defensive when my child and I argue.
2. I understand what my child is thinking, even when she/he does not tell me.
3. I accept that my child has opinions that are different from mine.
4. I listen to my child with one ear because I am busy thinking about something else.
5. My tone of voice is calm when I am giving my child a warning.
6. I get carried away with my own feelings when my child and I argue.
7. I apologise when I have acted in some way that hurts my child's feelings.
8. I listen carefully to my child's ideas, even when I do not agree with them.
9. I am easily distracted when my child and I are doing things together.
10. I give my child space to calm down when she/he is angry.
11. I get annoyed easily if my child interrupts me while I am doing something else.
12. I understand how my child feels just by looking at her/him.
13. I accept my child exactly as she/he is.
14. I fully focus on the activities my child and I are doing together.
15. I am patient with my child.
16. I have difficulty calming down after my child and I have argued.
17. I notice the changes in my child's mood.
18. I listen to my child without judging or criticising her/him.
19. I rush through activities with my child without really paying attention.
20. I am kind towards my child when she/he is going through a hard time.
21. I take out my frustration on my child even when it is not about her/him.
22. I understand why my child behaves the way she/he does.
23. I leave space for my child to speak.
24. My child needs to call out to me a few times to make me notice her/him even if we are in the same room.
25. I am tolerant of my child's imperfections.

MINDFUL PARENTING INVENTORY FOR CHILDREN (MPIC)

The following are a number of statements about your mother/father. We would like to know how you think your mother/father typically behaves towards you.

Read each item and tell us how <u>true it is for your mother/father.</u>

For example:

Never true

Rarely true

Sometimes true

Often true

Always true

PLEASE TRY TO ANSWER ALL THE QUESTIONS CAREFULLY.

1. My mother/father quickly becomes defensive when we argue.
2. My mother/father understands what I am thinking, even when I do not tell her/him.
3. My mother/father accepts that I have opinions that are different from hers/his.
4. My mother/father listens to me with one ear because she/he is busy thinking about something else.
5. My mother/father's tone of voice is calm when she/he is giving me a warning.
6. My mother/father gets carried away with her own feelings when we argue.
7. My mother/father apologises when she/he has acted in some way that hurts my feelings.
8. My mother/father listens carefully to my ideas, even when she/he does not agree with them.
9. My mother/father is easily distracted when we are doing things together.
10. My mother/father gives me space to calm down when I am angry.
11. My mother/father gets annoyed easily if I interrupt her/him while she/he is doing something else.
12. My mother/father understands how I feel just by looking at me.
13. My mother/father accepts me exactly as I am.
14. My mother/father fully focuses on the activities we are doing together.
15. My mother/father is patient with me.
16. My mother/father has difficulty calming down after we have argued.
17. My mother/father notices the changes in my mood.
18. My mother/father listens to me without judging or criticising me.
19. My mother/father rushes through activities with me without really paying attention.
20. My mother/father is kind towards me when I am going through a hard time.
21. My mother/father takes out her frustration on me even when it is not about me.
22. My mother/father understands why I behave the way I do.
23. My mother/father leaves space for me to speak.
24. I need to call out to my mother/father a few times to make her notice me even if we are in the same room.
25. My mother/father is tolerant of my imperfections.

Appendix P 18-item Mindful Parenting Inventories for Parents and Children

MINDFUL PARENTING INVENTORY FOR PARENTS (MPIP)

English	**Turkish**
The following are a number of statements about you. We would like to know how you think you typically behave towards your child. Read each item and tell us how <u>true it is for you.</u>	**Aşağıda sizinle ilgili birtakım ifadeler verilmiştir. Çocuğunuza karşı tipik olarak nasıl davrandığınızı düşünüyorsunuz bilmek istiyoruz. Her bir maddeyi okuyun ve o maddenin sizin için ne kadar doğru olduğunu belirtin.**
1. I quickly become defensive when my child and I argue.[*]	Çocuğumla tartıştığım zaman hemen savunmacı olurum.[*]
2. I understand what my child is thinking, even when she/he does not tell me.	Çocuğum bana söylemese bile onun ne düşündüğünü anlarım.
3. I accept that my child has opinions that are different from mine.	Çocuğumun benden farklı görüşleri olduğunu kabul ederim.
4. I listen to my child with one ear because I am busy thinking about something else.[*]	Başka bir şey düşünmekle meşgul olduğum için çocuğumu yarım kulak dinlerim.[*]
5. My tone of voice is calm when I am giving my child a warning.	Çocuğumu uyarırken ses tonum sakindir.
6. I get carried away with my own feelings when my child and I argue.[*]	Çocuğumla tartıştığımızda kendimi kaybederim.
7. I am easily distracted when my child and I are doing things together.[*]	Çocuğumla birlikte bir şeyler yaparken dikkatim kolayca dağılır.[*]
8. I get annoyed easily if my child interrupts me while I am doing something else.[*]	Ben başka bir şey yaparken çocuğum beni bölerse hemen sinirlenirim.[*]
9. I understand how my child feels just by looking at her/him.	Çocuğumun nasıl hissettiğini sadece ona bakıp anlarım.
10. I accept my child exactly as she/he is.	Çocuğumu tamamen olduğu gibi kabul ederim.
11. I am patient with my child.	Çocuğuma karşı sabırlıyımdır.
12. I have difficulty calming down after my child and I have argued.[*]	Çocuğumla tartıştıktan sonra sakinleşmekte zorlanırım.[*]
13. I notice the changes in my child's mood.	Çocuğumun duygudurumundaki değişiklikleri fark ederim.
14. I listen to my child without judging or criticising her/him	Çocuğumu yargılamadan ve eleştirmeden dinlerim.
15. I rush through activities with my child without really paying attention.[*]	Çocuğumla yaptığım etkinliklerde, gerçekten dikkatimi vermeden, aceleci davranırım.[*]
16. I understand why my child behaves the way she/he does.	Çocuğumun neden o şekilde davrandığını anlarım.
17. My child needs to call out to me a few times to make me notice her/him even if we are in the same room.[*]	Çocuğumla aynı odada olsak bile onu fark etmemi sağlamak için, bana birkaç kez seslenmesi gerekir.[*]
18. I am tolerant of my child's imperfections.	Çocuğumun kusurlarına karşı hoşgörülüyümdür.

MINDFUL PARENTING INVENTORY FOR CHILDREN (MPIC)

English	Turkish
The following are a number of statements about your mother/father. We would like to know how you think your mother/father typically behaves towards you. Read each item and tell us how <u>true it is for your mother/father.</u>	**Aşağıda annenizle ilgili birtakım ifadeler verilmiştir. Annenizin/babanız size karşı tipik olarak nasıl davrandığını düşünüyorsunuz bilmek istiyoruz. Her bir maddeyi okuyun ve o maddenin anneniz/babanız için ne kadar doğru olduğunu belirtin**.

1. My mother/father quickly becomes defensive when we argue.[*]
2. My mother/father understands what I am thinking, even when I do not tell her/him.
3. My mother/father accepts that I have opinions that are different from hers/his.
4. My mother/father listens to me with one ear because she/he is busy thinking about something else.[*]
5. My mother/father's tone of voice is calm when she/he is giving me a warning.
6. My mother/father gets carried away with her/his own feelings when we argue.[*]
7. My mother/father is easily distracted when we are doing things together.[*]
8. My mother/father gets annoyed easily if I interrupt her while she/he is doing something else.[*]
9. My mother/father understands how I feel just by looking at me.
10. My mother/father accepts me exactly as I am.
11. My mother/father is patient with me.
12. My mother/father has difficulty calming down after we have argued.[*]
13. My mother/father notices the changes in my mood.
14. My mother/father listens to me without judging or criticising me.
15. My mother/father rushes through activities with me without really paying attention.[*]
16. My mother/father understands why I behave the way I do.

Turkish column:

1. Tartıştığımız zaman annem/babam hemen savunmacı olur.[*]
2. Annem/babam ona söylemesem bile ne düşündüğümü anlar.
3. Annem/babam onunkilerden farklı görüşlerim olduğunu kabul eder.
4. Annem/babam, başka bir şey düşünmekle meşgul olduğu için beni yarım kulak dinler.[*]
5. Annemin/babamın ses tonu beni uyardığı zamanlarda sakindir.
6. Annem/babam tartıştığımız zamanlarda kendini kaybeder.[*]
7. Annemle/babamla birlikte bir şeyler yaparken annemin/babamın dikkati kolayca dağılır.[*]
8. Annem/babam bir şey yaparken eğer onu engellersem kolayca sinirlenir.[*]
9. Annem/babam nasıl hissettiğimi sadece bana bakarak anlar.
10. Annem/babam beni tamamen olduğum gibi kabul eder.
11. Annem/babam bana karşı sabırlıdır.
12. Annem/babam benimle tartıştıktan sonra sakinleşmekte zorlanır.[*]
13. Annem/babam duygudurumumdaki değişiklikleri fark eder.
14. Annem/babam beni yargılamadan ve eleştirmeden dinler.
15. Annem/babam, birlikte yaptığımız etkinliklerde, gerçekten dikkatini vermeden, aceleci davranır.[*]
16. Annem/babam, benim neden o şekilde davrandığımı anlar.

17. I need to call out to my mother/father a few times to make her notice me even if we are in the same room.[*]

18. My mother/father is tolerant of my imperfections.

Annemle aynı odada olsak bile beni fark etmesini sağlamak için, ona birkaç kez seslenmem gerekir.[*]

Annem/babam kusurlarıma karşı hoşgörülüdür.

Appendix Q Example Items of the Parent and Child Forms of the Alabama Parenting Questionnaire

PARENT FORM OF THE ALABAMA PARENTING QUESTIONNAIRE

The following are a number of statements about your family. Please rate each item as to how often it TYPICALLY occurs in your home.

The possible answers are: Never (1), Almost, never (2), Sometimes (3), Often (4), Always (5).

PLEASE ANSWER ALL ITEMS.

1. You let your child know when he/she is doing a good job with something.
2. You threaten to punish your child and then do not actually punish him/her.
3. Your child fails to leave a note or to let you know where he/she is going.

CHILD FORM OF THE ALABAMA PARENTING QUESTIONNAIRE

The following are a number of statements about your mother/father. Please rate each item as to how often it TYPICALLY occurs in your home.

The possible answers are: Never (1), Almost, never (2), Sometimes (3), Often (4), Always (5).

PLEASE ANSWER ALL ITEMS.

1. Your mother/father tells you that you are doing a good job.

2. Your mother/father threatens to punish you and then does not do it.

3. You fail to leave a note or tell your mother/father where you are going.

Appendix R Example Items of the Five-Facet Mindfulness Questionnaire

Please use the 1 (never or very rarely true) to 5 (very often or always true) scale provided to indicate how true the below statements are of you.

Select the number for each statement which represents your own opinion of what is generally true for you.

For example, if you think that a statement is often true of you, select '4' and if you think a statement is sometimes true of you, select '3'.

12. Even when I'm feeling terribly upset I can find a way to put it into words.
13. I find myself doing things without paying attention.

Appendix S Example Items of the Depression-Anxiety-Stress Scale-21

Please read each statement and select a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the *past week*. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all

1 Applied to me to some degree, or some of the time

2 Applied to me to a considerable degree, or a good part of time.

3 Applied to me very much, or most of the time

1. I found it hard to wind down.

3. I couldn't seem to experience any positive feeling at all.

19. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat).

Appendix T Example Items of the Strengths and Difficulties Questionnaire

SDQ PARENT FORM

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of the child's behaviour over the last six months or this school year.

Not True

Somewhat True

Certainly True

1. Considerate of other people's feelings.

3. Often complains of headaches, stomach-aches or sickness.

5. Often has temper tantrums or hot tempers.

SDQ CHILD FORM

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of how things have been for you over the last six months.

Not True

Somewhat True

Certainly True

1. I try to be nice to other people. I care about their feelings.

3. I get a lot of headaches, stomach-aches, or sickness.

5. I get very angry and often lose my temper.

Appendix U Example Items of the Emotionality Subscale of The Emotionality Activity Sociability Temperament Survey

NOW WE ARE INTERESTED IN THE GENERAL CHARACTERISTICS OF YOUR CHILD.

Please read each statement and select the number that represents the most appropriate answer for your child.

1 = Not characteristic/typical

2 = Occasionally characteristic/typical

3 = Somewhat characteristic/typical

4 = Characteristic/typical

5 = Very characteristic/typical

1. My child cries easily.
5. My child reacts intensely when upset.

Appendix V Example Items of the Multidimensional Scale of Perceived Social Support

We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Select the "1" if you Very Strongly Disagree

Select the "2" if you Strongly Disagree

Select the "3" if you Mildly Disagree

Select the "4" if you are Neutral

Select the "5" if you Mildly Agree

Select the "6" if you Strongly Agree

Select the "7" if you Very Strongly Agree

6. My friends really try to help me.

8. I can talk about my problems with my family.

10. There is a special person in my life who cares about my feelings.

Appendix W Example Items of the Confusion, Hubbub, and Order Scale

Your Home
Below are some things that happen in most homes. Please read each item carefully and select the number next to each statement that best describes your home.

Definitely untrue
Somewhat untrue
Not really true or untrue
Somewhat true
Definitely true

1. It's a real zoo in our home.
2. We are usually able to stay on top of things.

Appendix X Ethical approval for feasibility study

Ethics Forms - View Ethics Form [help]

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This page shows your ethics application form as it will be seen by your supervisor and the Ethics Committee.
Note that they will only be able to see your form if it has been submitted.

Student: Pinar Acet (pacet001@gold.ac.uk)

Academic Year: 2019-2020

Project Type: MPhil/PhD Project

Project Title: The Mindful Parenting Inventory for Children and Parents: A Preliminary Study

Supervisor: Bonny Oliver (boliv001@gold.ac.uk)

Does your project use ONLY secondary or simulated data (no additional data are collected): No

1) Will you describe the main experimental procedures to participants in advance, so that they are informed about what to expect?	Yes
2) Will you make it clear to participants that this is a student project?	Yes
3) Will you tell participants that their participation is voluntary?	Yes
4) Will you obtain written/online consent for participation?	Yes
5) If the research is observational, will you ask participants for their consent to being observed?	N/A
6) Will you tell participants that they may withdraw from the research at any time and for any reason?	Yes
7) With questionnaires, will you give participants the option of omitting questions they do not want to answer?	Yes
8) Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	Yes
9) Will you debrief participants at the end of their participation (i.e. give them a brief explanation of the study)?	Yes
10) Will your project comply with General Data Protection Regulation (GDPR)?	Yes
11) Will your project involve deliberately misleading participants in any way?	No
12) Are you asking any questions of sensitive or potentially upsetting content?	Yes
13) Is there any realistic risk of any participants experiencing either physical or psychological distress or discomfort? If Yes, give details below and state what you will tell participants to do if they should experience any problems (e.g. who they can contact for help).	No
14) Does your project involve work with animals?	No

15) Do participants fall into any of the following special groups? If they do, please refer to BPS guidelines and other relevant documents. Note that you may also need to obtain satisfactory CRB clearance (or equivalent for overseas students).	Children (under 18 years of age)	Yes
	People with learning or communication difficulties	No
	Patients	No
	People in custody	No
	People engaged in illegal activities (e.g. drug-taking)	No

Are you collecting data online? Yes

Link to survey/test: https://goldpsych.eu.qualtrics.com/jfe/form/SV_bq1LqMlZ3qjhFYh

Login details (if required):

For questions 1 to 9 above, describe how you will meet these criteria on-line. For example, for question 4, instead of written consent, participants must confirm that they are 18 or over and tick on-line to agree to participate, or agree to participate by proceeding to the next page; for question 7, there should be an option of skipping individual questions.

Q1:	An electronic information sheet and debriefing information will be made available to participants before consent is gained, and the questionnaire is launched.
Q2:	It will be clearly stated in the information sheet and debriefing information that this is a PhD project.
Q3:	It will be clearly stated in the information. Besides, there will be a tick box option in the online consent form to ensure that participants understand they are free to withdraw at any point.
Q4:	Online consent will be gained as part of the online questionnaire, the questionnaire will not continue to the next page unless this has been completed.
Q5:	The study does not include an observation. Informed consent will be obtained only for the questionnaire.
Q6:	It will be clearly stated in the information sheet and debriefing information that participants have the right to withdraw. Besides, there will be a tick box option in the online consent form to ensur
Q7:	Participants will be able to skip questions that they do not want to answer.
Q8:	This will be made explicit in the introductory materials.
Q9:	Full debriefing information will be provided at the end of the study.

A. I consider that this project has no significant ethical implications to be brought before the Departmental Ethics Committee: No

B. I consider that this project may have ethical implications that should be brought before the Departmental Ethics Committee, and/or it will be carried out with children or other vulnerable populations: Yes

Purpose of project and its academic rationale:
Mindful parenting refers to parenting skills that require "paying attention to your child and your parenting in a particular way: intentionally, here and now, and nonjudgmentally" (Kabat-Zinn & Kabat-Zinn, 1997). These skills allow parents to listen to child with full attention, accept self and child

nonjudgmentally, have compassion and emotional awareness of self and child and regulate behaviours and emotions during parent-child interaction (Duncan et al., 2009). Mindful parenting has been associated with more secure parent-child relationship (Gärdesli et al., 2018; Lippold et al., 2019; Moreira et al., 2018; Turpyn & Chaplin, 2016; Zhang et al., 2019), more adaptive emotion regulation in children (Moreira & Cristina Canavarro, 2019; Zhang et al., 2019) and reduced stress in parents (Gouveia et al., 2016; Moreira & Cristina Canavarro, 2018), which in turn might contribute to psychological and behavioural well-being of children (Moreira et al., 2018; Moreira & Cristina Canavarro, 2019; Turpyn & Chaplin, 2016).
To date, however, almost all studies reviewed above were constrained by relying on parents' self-report of mindful parenting skills measured by the Interpersonal Mindfulness in Parenting Scale (IM-P; Duncan, 2007; Duncan et al., 2009) or the Mindfulness In Parenting Questionnaire (MIPQ; McCaffrey et al., 2017). Despite our understanding that it is essential to consider the child-report and ideally the report of multiple informants on parenting behaviour (Sessa et al., 2001) to increase validity (Morsbach & Prinz, 2006), to our knowledge, no research has given attention to the simultaneous assessment of mindful parenting from both parent and child perspectives.
Additionally, there is only one study considering children's perspective of mindful parenting (Lippold et al., 2015). Yet, the IM-P used in this study had not been validated for use among children, and it was questionable whether the items of the scale were appropriate for the developmental level of the children. For example, IP-M contains items requiring a high level of theory of mind, which refers to the ability of children to predict mental and emotional states of their parents (Westby & Robinson, 2014) (e.g. "When my child misbehaves, it makes me so upset I say or do things I later regret", "It is easy for me to tell when my child is worried about something").
To fill this research gap, a new questionnaire has been developed by the applicant to measure both parent and child perceptions of mindful parenting simultaneously. In the current phase of the research, the aim is to ascertain whether questionnaire items are acceptable and straightforward for parents and children to answer. The data will be used to revise the tool for further study.

Brief description of methods and measurements:
Parents and their children will be recruited together. Parents who consider taking part in the study will be given an information sheet designed for them to better understand the study, and to discuss it with their child. Parental consent will be collected, and children will be asked to confirm their assent. The new measure, the 45-item Mindful Parenting Inventory for Children (MPIC) and Mindful Parenting Inventory for Parents (MPIP) will be given to children and parents who agree to participate, respectively. In addition, both parents and children will be asked some questions about their opinion of the measure. The questionnaire is expected to be completed in approximately 15 minutes.

Participants: recruitment methods, number, age, gender, exclusion/inclusion criteria:
25 participants -- mothers and their children aged 11 to 15 years old — will be recruited through existing networks and snowball sampling via email and social media. Mothers and children living together and who are either native English speakers or fluent in English will be included in the study, while children with a learning disability, (neuro)developmental or mental-health disorder will be excluded.

Consent and participant information arrangements, debriefing:
The information sheet explaining the research process and ethical considerations will be provided before taking part, and the informed consent form will need to be endorsed by both parent and child (assent) participants to launch the online questionnaire. Parents who agree to participate in the study will be asked to forward a questionnaire link to children. Debriefing information will be provided at the end of the online questionnaire.

A clear but concise statement of the ethical considerations raised by the project and how you intend to deal with them:
The risks involved in participating are minimal. However, participants may feel discomfort if they are currently struggling with some issues related to mother-child relationship. Therefore, before taking part in the study, participants will be informed about the content of the research and their right to withdraw at any time without giving a reason. They will also be able to skip questions if they wish. Participants will be given access to support organisations in the event that they do experience distress and would like to seek further help.

Estimated start date: 15/03/2020

Estimated end date: 15/04/2020

Uploaded Documents:

File	Document Type	Date Uploaded	Time Uploaded	Description
7. MPIP (parent).docx	Other	28/02/2020	11:34:52	Mindful Parenting Inventory for Paren
6. MPIC (child).docx	Other	28/02/2020	11:34:00	Mindful Parenting Inventory for Childr
5. reference list.docx	Other	27/02/2020	20:36:40	references
4. Debrief_PA+nar ACET.docx	Debrief	27/02/2020	20:36:23	
3. Informed Consent form _PINAR ACET.docx	Consent	27/02/2020	20:36:12	
2. The General Data Protection Regulation_guidelines for participants_new.docx	Data Privacy	27/02/2020	20:36:01	
1. Participant Information Sheet_PINAR ACET.docx	Study Information	27/02/2020	20:35:51	

Your list of uploaded documents meets the requirements for this application.

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This page shows a list of your ethics forms.
Use the "Add new ethics form" link to create a new ethics form, and the links next to each form to view/edit the information for each form.
To submit your form, use the "edit" link next to it. Once you have filled in your form, use the "Submit" button to submit it to your supervisor. Note that you will only be able to submit your form after you have uploaded the supporting documents.

Add new ethics form

Year	Form Type	Supervisor	Project Title	Status						
2019-2020	MPhil/PhD Project	Bonny Oliver	The Mindful Parenting Inventory for Children and Parents: A Preliminary Study	Approved	edit	view	documents	comments	messages	delete
2019-2020	MPhil/PhD Project	Bonny Oliver	A PROCESS MODEL OF MINDFUL PARENTING: A LONGITUDINAL EXAMINATION OF DETERMINANTS AND OUTCOMES OF MINDFUL PARENTING	Approved	edit	view	documents	comments	messages	delete

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Gönderen: Yulia Kovas <y.kovas@gold.ac.uk>
Gönderildi: 31 Ekim 2020 Cumartesi 17:39
Kime: Pinar Acet <pacet001@gold.ac.uk>
Konu: Approval

Dear Pinar,
This is to confirm that your project "The Mindful Parenting Inventory for Children and Parents: A Preliminary Study" has been approved by the Goldsmiths Psychology Department Ethics Committee. The protocol number is: PS200320PAS.

Sincerely,

Professor Yulia Kovas
Chair, Goldsmiths Psychology Department Ethics Committee

_____

Yulia Kovas, BA MA BSc MSc PhD
Юлия Ковас

Appendix Y Ethical approval for main study

Doctoral Student Ethics Application Form

Anyone conducting research under the auspices of the Institute of Education (staff, students or visitors) where the research involves human participants or the use of data collected from human participants, is required to gain ethical approval before starting. This includes preliminary and pilot studies. Please answer all relevant questions in simple terms that can be understood by a lay person and note that your form may be returned if incomplete.

Registering your study with the UCL Data Protection Officer as part of the UCL Research Ethics Review Process

If you are proposing to collect personal data i.e. data from which a living individual can be identified **you must be registered with the UCL Data Protection Office before you submit your ethics application for review**. To do this, e-mail the complete ethics form to the UCL Data Protection Office. Once your registration number is received, add it to the form* and submit it to your supervisor for approval. If the Data Protection Office advises you to make changes to the way in which you propose to collect and store the data this should be reflected in your ethics application form.

Please note that the completion of the UCL GDPR online training is mandatory for all PhD students.

Section 1 – Project details

a. Project title: DETERMINANTS AND OUTCOMES OF MINDFUL PARENTING
b. Student name and ID number (e.g. ABC12345678): PINAR ACET/20178829
c. ***UCL Data Protection Registration Number:** Z6364106/2021/01/43 social research
   a. Date Issued: Enter text
d. Supervisor/Personal Tutor: DR BONAMY OLIVER
e. Department: Department of Psychology and Human Development
f. Course category (Tick one):

   PhD   ☒
   EdD   ☐
   DEdPsy   ☐

g. **If applicable**, state who the funder is and if funding has been confirmed.
h. Intended research start date: 01.02.2021

i. Intended research end date: 15.09.2022
j. Country fieldwork will be conducted in: UK and Turkey
k. If research to be conducted abroad please check the Foreign and Commonwealth Office (FCO) and submit a completed travel risk assessment form (see guidelines). If the FCO advice is against travel this will be required before ethical approval can be granted: *UCL travel advice webpage*
l. Has this project been considered by another (external) Research Ethics Committee?

Yes   ☒
External Committee Name: Goldsmiths Psychology Department Ethics Committee
Date of Approval: 29 July 2020

No   ☐   ***go to Section 2***

If yes:
- Submit a copy of the approval letter with this application.
- Proceed to Section 10 Attachments.

Note: Ensure that you check the guidelines carefully as research with some participants will require ethical approval from a different ethics committee such as the National Research Ethics Service (NRES) or Social Care Research Ethics Committee (SCREC). In addition, if your research is based in another institution then you may be required to apply to their research ethics committee.

Section 2 - Research methods summary (tick all that apply)

☐ Interviews
☐ Focus Groups
☒ Questionnaires
☐ Action Research
☐ Observation
☐ Literature Review
☐ Controlled trial/other intervention study
☐ Use of personal records
☐ Systematic review **– if only method used go to Section 5**
☐ Secondary data analysis **– *if secondary analysis used go to Section 6***
☐ Advisory/consultation/collaborative groups
☐ Other, give details: Enter text

Please provide an overview of the project, focusing on your methodology. This should include some or all of the following: purpose of the research, aims, main research questions, research design, participants, sampling, data collection (including justifications for methods chosen and description of topics/questions to be asked), reporting and dissemination. Please focus on your methodology; the theory, policy, or literary background of your work can be provided in an attached document (i.e. a full research proposal or case for support document). *Minimum 150 words required.*

Research Aims and Questions

The proposed study aims to uncover determinants and outcomes of mindful parenting, considering parent and child perceptions of mindful parenting in two samples, one from the UK and one from Turkey. In mindful parenting literature, although some of the studies on mindful parenting have been conducted in Non-western countries, most of our knowledge has been based on the data from Western countries. Because parenting practices vary across cultures (see Bornstein, 2012), it is difficult to make an inference, which has validity beyond cultures, about mindful parenting and its effects on parent and children. For instance, the same parental behaviour could shape children's behaviour differently in different cultures; while the same children's outcomes in different cultures might be developed by different parental practices (e.g., Güngör & Bornstein, 2010; Lansford et al., 2005; Yağmurlu & Sanson, 2009).

To facilitate this overarching aim, as part of the first year of PhD studies, the applicant has devised new parallel questionnaires, Mindful Parenting Inventories for Parents (MPIP) and Children (MPIC), to measure both parent and child perceptions of mindful parenting simultaneously (Acet & Oliver, *under review*). A pilot/feasibility study with 44 parents and 33 children is completed. The pilot/feasibility study was approved by Goldsmiths, University of London, Department of Psychology Ethics Committee (the previous institution of the PhD student and her supervisor). The protocol number is PS200320PAS.

Accordingly, the current phase of the project will comprise five aims: 1) to validate the new inventories in bigger samples of the UK and Turkey, 2) to explore the associations between parent and child-reported mindful parenting in both cultures, 3) to test cross-sectional links between the so-called determinants of parenting [parent characteristics, (i.e., age, gender, childhood trauma, personality, dispositional mindfulness, psychological well-being), child characteristics (i.e., child age, gender, negative emotionality, psychological well-being), family social environment characteristics (i.e., marital quality, social support, SES)] and parent and child-reported mindful parenting in both cultures, 4) to explore similarities and differences in the determinants of mindful parenting across the UK and Turkey samples, 5) to test the short-term (four-month) longitudinal links from the determinants to mindful parenting, as well as, the bidirectional associations over time between parent and child-reported mindful parenting and parents' and children's psychological well-being in both cultures.

Accordingly, the proposed research will address the following research questions:

1.   Can children's perceptions of mindful parenting be measured with validity?

2.   What are the relationships between parent and child-reported mindful parenting?

3.   To what extent are the determinants (characteristics of parent, child and family social environment defined above) related to parent and child-reported mindful parenting cross-sectionally?

4.   Are the determinants of mindful parenting similar or different between the UK and Turkey?

5.   To what extent are the determinants (characteristics of parent, child and family social environment defined above) related to parent and child-reported mindful parenting longitudinally?

6.   Are there bidirectional associations between parent and child-reported mindful parenting and parent's and child's psychological well-being outcomes, or are these only one-way associations (from mindful parenting to parent's and child's psychological well-being outcomes or vice versa)?

Participants, Measures and Process

In the UK study, two-hundred and fifty parents (either mothers or fathers) and their children aged 11 to 16 years old and living with them full-time will be recruited through existing professional networks (including schools if coronavirus permits) as well as targeted social media groups (Twitter, Instagram, Facebook). Parents and children living in the UK and who are either native English speakers or fluent in English will be included in the study, while parents and children with a learning disability, (neuro)developmental or mental-health disorder will be excluded. In the study to be conducted in Turkey, the recruitment methods, the number of participants expected to participate, and the inclusion/exclusion criteria will be the same as the study to be conducted in the UK. Thus, parents having a child aged 11 to 16 years old, living in Turkey, who are either native Turkish speakers or fluent in Turkish and without a learning disability, (neuro)developmental or mental-health disorder and their Turkish speaker children without a learning disability, (neuro)developmental or mental-health disorder and living with them full-time will be included in the study.

Parents and their children will be recruited together. Parents who consider taking part in the study will be given an information sheet designed for them to understand the study better, and to discuss it with their child. Parental consent will be collected, and children will be asked to confirm their assent. If parents do not consent their children's participation, their children will not be included in the research (Opt-in sampling).

In the first study stage, the following questionnaires will be completed by both parents and children: Mindful Parenting Inventories for Parents (MPIP) and Children (MPIC) developed by the applicant and the supervisor (Acet & Oliver, under review), the Short Form of the Alabama Parenting Questionnaire (APQ-Short, Elgar et al., 2007; Gross et al., 2017) and the Strengths and Difficulties Questionnaire (SDQ, Goodman, 1997). Parents (only) will additionally be asked to complete demographic information, including their education level, their age and gender and their child's age and gender, Macarthur Scale of Subjective Social Status ladder (Adler et al., 2000), relevant

stressful life events experienced in the last six months (checklist prepared by the applicant), Threatened subscale of Early Life Experiences Scale (ELES, Gilbert et al., 2003), Five Facet Mindfulness Questionnaire Short form (FFMQ, Gu et al., 2016), Ten-Item Personality Inventory (TIPI, Gosling et al., 2003), Depression Anxiety and Stress Scale 21-item version (DASS-21, Lovibond & Lovibond, 1995), "Emotionality" Subscale of the Emotionality Activity Sociability Temperament Survey (EASTS, Buss & Plomin, 1984), Relationship Assessment Scale (RAS, Hendrick et al., 1998), Multidimensional Scale of Perceived Social Support (MSPSS, Zimet et al., 1988) and Confusion, Hubbub and Order Scale (CHAOS, Matheny et al., 1995). A validation study of the MPIC and MPIP will be conducted using these data as well as a cross-sectional examination of the association between these measured variables.

The second study stage comprises a shorter follow-up study to be conducted four months later to examine short-term longitudinal relations between mindful parenting and its determinants, and outcomes. Parents will be asked to complete RAS (Hendrick et al., 1998), MSPSS (Zimet et al., 1988), CHAOS (Matheny et al., 1995), FFMQ, (Gu et al., 2016) MPIP, DASS-21 (Lovibond & Lovibond, 1995) and the SDQ (Goodman, 1997). They will also be asked to indicate any stressful life events they experienced since their first participation. At this stage, children will be asked to complete the MPIC and SDQ (Goodman, 1997). The same procedure as in the UK will be conducted in Turkey, and corresponding Turkish measures will be used to collect data in Turkey.

The rationale for the selected Questionnaire: APQ-Short (Elgar et al., 2007; Gross et al., 2017) and FFMQ, (Gu et al., 2016) will be used to assess the validity of the new inventories developed for the current PhD project. SDQ (Goodman, 1997) -which is one of the most reliable questionnaires to assess the child's behaviours- will be used to assess the child's outcomes. All other questionnaires will target to measure the determinants of mindful parenting in accordance with the determinants of parenting defined in Belsky's Process Model of Parenting.

The rationale for collecting data on sensitive data such as SES and ethnicity: This study will collect information on this information because, in the literature, those have arisen as important determinants of parenting.

The rationale for *collecting personally identifiable data such as e-mail addresses and contact number:* This is because the current study is a longitudinal study and participants should be contacted four months later to participate in the research again.

Section 3 – research Participants (tick all that apply)

☐ Early years/pre-school
☒ Ages 5-11
☒ Ages 12-16
☐ Young people aged 17-18
☒ Adults please specify below
☐ Unknown – specify below
☐ No participants

Parents of children aged 11 to 16 years old.

Note: Ensure that you check the guidelines carefully as research with some participants will require ethical approval from a different ethics committee such as the National Research Ethics Service (NRES) or Social Care Research Ethics Committee (SCREC).

Section 4 - Security-sensitive material (only complete if applicable)

Security sensitive research includes: commissioned by the military; commissioned under an EU security call; involves the acquisition of security clearances; concerns terrorist or extreme groups.

    a. Will your project consider or encounter security-sensitive material?
       Yes* ☐ No ☐

    b. Will you be visiting websites associated with extreme or terrorist organisations?
       Yes* ☐ No ☐

    c. Will you be storing or transmitting any materials that could be interpreted as promoting or endorsing terrorist acts?
       Yes* ☐ No ☐

** Give further details in **Section 8 Ethical Issues***

Section 5 – Systematic reviews of research (only complete if applicable)

    a. Will you be collecting any new data from participants?
       Yes* ☐ No ☐

    b. Will you be analysing any secondary data?
       Yes* ☐ No ☐

** Give further details in **Section 8 Ethical Issues***

*If your methods do not involve engagement with participants (e.g. systematic review, literature review) **and** if you have answered **No** to both questions, please go to **Section 8 Attachments**.*

Section 6 - Secondary data analysis (only complete if applicable)

    a. Name of dataset/s: Enter text
    b. Owner of dataset/s: Enter text
    c. Are the data in the public domain?
       Yes ☐ No ☐
       ***If no,** do you have the owner's permission/license?*
       Yes ☐ No* ☐

d. Are the data special category personal data (i.e. personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, and the processing of genetic data, biometric data for the purpose of uniquely identifying a natural person, data concerning health or data concerning a natural person's sex life or sexual orientation)?
Yes* ☐ No ☐

e. Will you be conducting analysis within the remit it was originally collected for?
Yes ☐ No* ☐

f. **If no**, was consent gained from participants for subsequent/future analysis?
Yes ☐ No* ☐

g. **If no,** was data collected prior to ethics approval process?
Yes ☐ No* ☐

 * *Give further details in **Section 8 Ethical Issues***

*If secondary analysis is only method used **and** no answers with asterisks are ticked, go to **Section 9 Attachments.***

Section 7 – Data Storage and Security

Please ensure that you include all hard and electronic data when completing this section.

a. Data subjects - Who will the data be collected from?

b. The data will be collected from parents living in the UK and Turkey and their children aged 11 to 16 years old and living with them full-time. Participants will be recruited online through existing professional networks (including schools if coronavirus permits) as well as targeted social media groups by Qualtrics software. If parents take part in the research, they will be asked their e-mail addresses and sent a link via e-mail for their children's participation.

c. What data will be collected? Please provide details of the type of personal data to be collected
The Data to be Provided From Parents
E-mail addresses of parents
Contact numbers of parents
Parent and child gender
Parent and child age (years).
The country where parents live.
Parents' ethnicity, highest level of educational qualification, marital status.
The number of children parents have.

Parents' relationships with the children (mother, father, adoptive mother/father)

Whether parents are living together with their children full-time.

Questionnaires:

1. Macarthur Scale of Subjective Social Status ladder (Adler et al., 2000)
2. Stressful life events checklist
3. The Mindful Parenting Inventories for Parents (MPIP)
4. Short Form of the Alabama Parenting Questionnaire (APQ-Short, Elgar et al., 2007; Gross et al., 2017)
5. Five Facet Mindfulness Questionnaire Short form (FFMQ, Gu et al., 2016)
6. Depression Anxiety and Stress Scale 21-item version (DASS-21, Lovibond & Lovibond, 1995)
7. Ten-Item Personality Inventory (TIPI, Gosling et al., 2003)
8. Confusion, Hubbub and Order Scale (CHAOS, Matheny et al., 1995)
9. The Threatened Subscale of Early Life Experiences Scale (ELES, Gilbert et al., 2003)
10. Relationship Assessment Scale (RAS, Hendrick et al., 1998)
11. Multidimensional Scale of Perceived Social Support (MSPSS, Zimet et al., 1988)
12. "Emotionality" subscale of the Emotionality Activity Sociability Temperament Survey (EASTS, Buss & Plomin, 1984)
13. Strengths and Difficulties Questionnaire (SDQ, Goodman, 1997)

The Data to be Provided From Children

Questionnaires:

1. The Mindful Parenting Inventories for Children (MPIC)
2. A Short Form of the Alabama Parenting Questionnaire (APQ-Short, Elgar et al., 2007; Gross et al., 2017)
3. Strengths and Difficulties Questionnaire (SDQ, Goodman, 1997)

Is the data anonymised? Yes ⊠ No* ☐
Do you plan to anonymise the data?   Yes* ⊠ No ☐
Do you plan to use individual level data? Yes* ☐ No ⊠
Do you plan to pseudonymise the data? Yes* ⊠ No ☐

** Give further details in **Section 8 Ethical Issues***

d. **Disclosure –** Who will the results of your project be disclosed to?
The results of the research will be used in the thesis and viva and will be published in academic journals. No identifying information will be included in the dissertation and publications; only group findings will be reported in the

dissertation, and in any presentations or publications. Participants will be told to send an e-mail directly to the researcher and to declare if they would like to be informed about these group findings.

Disclosure – Will personal data be disclosed as part of your project?

No. All information will be anonymised and pseudonymised, and no personal data will be disclosed in the project. The data with individually identifiable data will be available by the PhD student only.

e. Data storage – Please provide details on how and where the data will be stored i.e. UCL network, encrypted USB stick**, encrypted laptop** etc.

All data will be collected using Qualtrics software, and only the PhD researcher will access the participants responds by UCL e-mail address and password. The raw data, including participants' personally identifiable data (e-mail addresses and contact number), will be kept in Qualtrics where the data will be collected. Participants' personally identifiable data will be used just in order to send them a link for their children participation and remind them to participate in the follow-up study. The identifying data will not be processed in the scope of the research aims. The participants' personally identifiable data will be accessible only by the PhD student and will not be kept for any longer than 12 months after collection. To link parents' data with those of their own children, unique reference numbers will be created by parents. The data with the "unique reference numbers" will only be accessible by the PhD student and supervisor. When the data downloaded from Qualtrics to analyse data, the personally identifiable data will be deleted immediately, but the unique reference numbers will be kept. The data -that does not include identifying data but includes the unique reference numbers- will be stored on the PhD student's password-protected laptop in an encrypted excel and SPSS (sav) file. After that, the data will be coded and fully anonymised. That means the identifiable personal data such as e-mail addresses and phone numbers will be deleted, and the unique reference numbers will be replaced by new ID numbers (e.g., parent 101a and child 101b; parent 102a and child 102b) and stored as such. Once the data anonymised, it will not be possible to identify (directly or indirectly) individuals from the data or publications because all identifying information will be separated from the research data, and no identifying data will be shared. Thus, no other data collected by the standard questionnaires and from the data defined as special category personal by UCL Data Protection Policy -such as ethnic origin- can be matched with or tracked by the identifying data or unique reference numbers. The fully anonymised data will be stored on the PhD student's password-protected laptop in an encrypted excel and SPSS (sav) file and also on the UCL N drive. It will be retained for a minimum of ten years after the completion of the doctoral project. No personally identifiable data will be held on UCL N drive.

*** Advanced Encryption Standard 256 bit encryption which has been made a security standard within the NHS*

f. **Data Safe Haven (Identifiable Data Handling Solution)** – Will the personal identifiable data collected and processed as part of this research be stored in the UCL Data Safe Haven (mainly used by SLMS divisions, institutes and departments)?
Yes ☐ No ☒

g. How long will the data and records be kept for and in what format?

The raw data, including personally identifiable data, will be kept in Qualtrics - where the data will be collected- and be destroyed no later than 12 months after the data collection has concluded.

The pseudonymised data, -that does not include identifying data but includes the unique reference numbers- will be stored on the PhD student's password-protected laptop in an encrypted excel and SPSS (sav) file. To be backed up, the pseudonymised data will be transferred to the supervisor via password-protected documents only via UCL e-mail. The original unique reference numbers will be kept no longer than 12 months after the data collection has concluded.

The fully anonymised data will all be securely stored and backed up daily on the UCL N drive (100GB of centrally managed storage). No identifying data will be held on the UCL N drive. The anonymised data will also be backed up in the PhD student's password-protected laptop in an encrypted excel and SPSS (sav) file. After the successful completion of the PhD, the anonymised data will be stored on UCL's Research Data Repository and be retained for a minimum of ten years after the completion of the doctoral project.

Will personal data be processed or be sent outside the European Economic Area? (If yes, please confirm that there are adequate levels of protections in compliance with GDPR and state what these arrangements are)
No

Will data be archived for use by other researchers? (If yes, please provide details.)
No

h. If personal data is used as part of your project, describe what measures you have in place to ensure that the data is only used for the research purpose e.g. pseudonymisation and short retention period of data'.

To ensure this, 1) the raw data, including personally identifiable data, will be kept in Qualtrics -where the data will be collected- and be kept for as long as is required,

but no longer than 12 months after the data collection has concluded. The software provides data recovery in case of any accidental data loss. The data that includes personally identifiable data will not be kept in somewhere else to decrease the risk of any personal data breach. 2) only the PhD researcher will be able to access the non-anonymised identifying data by UCL e-mail address, and password and only the PhD student will be in contact with parent participants. 3) The laptop to store the data will be a business laptop with a security code. In this way, the PhD researcher will not be travelling with the laptop. It will be left in the locked home office. If the PhD researcher needs to travel with the laptop, she will keep the password-protected laptop with her at any time to ensure its security. No login information will be saved in the search engine to access any platform the data is collected by or stored on. UCL passwords required to log in will be updated in every 3 months.

The fully anonymised data will be stored on the UCL N drive and be backed up the PhD student's password-protected laptop in an encrypted excel and SPSS (sav) file; participants will not be identified from this data.

To link parents' data with those of their own children, unique reference numbers created by parents and be accessible only by the PhD researchers and supervisor will be used. On anonymisation, unique reference numbers will be replaced by new ID numbers (e.g. parent 101a and child 101b; parent 102a and child 102b) and stored as such. Therefore, the personally identifiable data can not be tracked by the unique reference numbers or to the given data.

In the case of any personal data breach (the accidental or unlawful destruction, loss, alteration, unauthorised disclosure of, or access to, personal data) will be reported using Personal Data Breach Reporting Form and sent to ISG: isg@ucl.ac.uk.

* *Give further details in **Section 8 Ethical Issues***

Section 8 – Ethical Issues

Please state clearly the ethical issues which may arise in the course of this research and how will they be addressed.

All issues that may apply should be addressed. Some examples are given below, further information can be found in the guidelines. *Minimum 150 words required.*

- Methods
- Sampling
- Recruitment
- Gatekeepers
- Informed consent
- Potentially vulnerable participants
- Safeguarding/child protection
- Sensitive topics
- International research

- Risks to participants and/or researchers
- Confidentiality/Anonymity
- Disclosures/limits to confidentiality
- Data storage and security both during and after the research (including transfer, sharing, encryption, protection)
- Reporting
- Dissemination and use of findings

Methods, Sampling, Recruitment

Participation will be entirely voluntary. If they decide to participate, parents will be given an information sheet, and they will be asked to provide their consent for their own and child's participation.

Opt-in sampling will be applied to ensure that children have their parents' permission to participate in the research. Accordingly, parental consent will be collected first. If parents do not consent their children's participation, their children will not be included in the research (Opt-in sampling). Parents who agree to participate in the study will be asked to forward a questionnaire link to children. Children will also be asked to confirm their assent before their participation.

Parents and children will be kindly asked to complete the questionnaires separately. This is important both to protect participants privacy and also to increase the validity of the answers.

Informed consent

An electronic information sheet will be made available to participants before consent is gained, and the questionnaire is launched. Online consent and assent will be gained as part of the online questionnaire; the questionnaire will not continue to the next page unless this has been completed. Debriefing information will be provided to parents at the end of the online questionnaire.

Involvement of Children (Potentially vulnerable participants)

The research does not propose to ask children to provide information about their personal or family background, religious beliefs, their personal likes and dislikes, or any other aspects of their life which may be considered sensitive. Furthermore, the questionnaires will be sent the child participants online, and they will be able to participate in the study in their home environment at any time they wish. Thus, the study does not involve any face-to-face contact with the researcher and children. The PhD student is aware that this age group is considered as vulnerable. The researcher is fully committed to the protection of their well-being, and the prevention of exploitation of their vulnerabilities.

The children will be informed clearly that their participation would be entirely voluntary and about their right to withdrawal from the study. Children will be given access to support organisations in the event that they would like to seek further help (Childline: https://www.childline.org.uk/).

The researcher has a DBS certificate from the UK and also a Criminal Record Check from her home country (Turkey).

Disclosures/limits to confidentiality

Confidentiality will be respected subject to legal constraints and professional guidelines. During the study, participants will be able to skip questions that they do not want to answer.

Participants will be informed that assurances on confidentiality will be strictly adhered to unless evidence of wrongdoing or potential harm to themselves or their child is uncovered.

Benefits of the research for the Participants

Parents will be eligible to enter a prize draw where they will have the chance to win one of two Amazon vouchers worth £50 for their participation both at Time 1 and Time 2. Children will also be eligible to enter a prize draw where they will have the chance to win two Amazon vouchers worth £25 for their participation both at Time 1 and Time 2. The vouchers will be sent to their parents.

Risks to participants and/or researchers

The risks involved in participating are minimal. There is no foreseen physical or mental risk. However, participants may feel discomfort if they are currently struggling with some issues related to the parent-child relationship. Therefore, before taking part in the study, all participants will be informed about the content of the research and their right to withdraw at any time without giving a reason. They will also be able to skip questions if they wish. Parents and children will be given access to support organisations in the event that they do experience distress and would like to seek further help.

There is no foreseen risk for the researchers.

Data storage

As mentioned above, all information collected about the individual will be kept strictly confidential. To ensure this, 1) the raw data, including personally identifiable data, will be kept in Qualtrics -where the data will be collected- and be kept for as long as is required, but no longer than 12 months after the data collection has concluded. The software provides data recovery in case of any accidental data loss. The data that includes personally identifiable data will not be kept in somewhere else to decrease the risk of any personal data breach. 2) only the PhD researcher will be able to access the non-anonymised identifying data by UCL e-mail address and password, 3) The laptop to store the data will be a business laptop with a security code. In this way, the PhD researcher will not be travelling with the laptop. It will be left to the locked home office. If the PhD researcher needs to travel with the laptop, she will keep the password-protected laptop with her at any time to ensure its security. No login information will be saved in the search engine to access any platform the data is collected by or stored on. UCL passwords required to log in will be updated in every 3 months.

To link parents' data with those of their own children, unique reference numbers will be created by parents and be accessible only by the PhD researchers and supervisor will be used. While the data anonymised, the unique reference numbers will be replaced by new ID numbers (e.g. parent 101a and child 101b; parent 102a and child

102b) and stored as such. Therefore, the personally identifiable data cannot be tracked by the unique reference numbers.

If the data is transferred between the PhD student and the supervisor, it will be done so via password-protected documents and only via UCL e-mail. All the data will be stored and transferred to UCL digitally.

Dissemination and use of findings

The study will be reported in the PhD thesis to be submitted to IOE. Thus, the results of the research will be used principally in the thesis and viva. The findings will also be considered to be published in academic journals.

Participants will be told to send an e-mail directly to the researcher and to declare if they would like to be informed about the results of the research.

Please confirm that the processing of the data is not likely to cause substantial damage or distress to an individual

Yes ☒

Section 9 – Attachments. *Please attach the following items to this form, or explain if not attached*

a. Information sheets, consent forms and other materials to be used to inform potential participants about the research (List attachments below)
Yes ☒ No ☐

Child Assent Form
Parent consent-form
Participant Information sheet
Debrief for parents

b. Approval letter from external Research Ethics Committee   Yes ☒
c. The proposal ('case for support') for the project Yes ☒
d. Full risk assessment Yes ☐

Section 10 – Declaration

I confirm that to the best of my knowledge the information in this form is correct and that this is a full description of the ethical issues that may arise in the course of this project.

I have discussed the ethical issues relating to my research with my supervisor.
Yes ☒ No ☐

I have attended the appropriate ethics training provided by my course.
Yes ☒ No ☐

I confirm that to the best of my knowledge:

 The above information is correct and that this is a full description of the ethics issues that may arise in the course of this project.

Name   PINAR ACET

Date   18.12.2020

Please submit your completed ethics forms to your supervisor for review.

Notes and references

Professional code of ethics

You should read and understand relevant ethics guidelines, for example:

British Psychological Society (2018) *Code of Ethics and Conduct*

Or

British Educational Research Association (2018) *Ethical Guidelines*

Or

British Sociological Association (2017) *Statement of Ethical Practice*

Please see the respective websites for these or later versions; direct links to the latest versions are available on the Institute of Education Research Ethics website.

Disclosure and Barring Service checks

If you are planning to carry out research in regulated Education environments such as Schools, or if your research will bring you into contact with children and young people (under the age of 18), you will need to have a Disclosure and Barring Service (DBS) CHECK, before you start. The DBS was previously known as the Criminal Records Bureau (CRB). If you do not already hold a current DBS check, and have not registered with the DBS update service, you will need to obtain one through at IOE.

Ensure that you apply for the DBS check in plenty of time as will take around 4 weeks, though can take longer depending on the circumstances.

Further references

Robson, Colin (2011). *Real world research: a resource for social scientists and practitioner researchers* (3rd edition). Oxford: Blackwell.

This text has a helpful section on ethical considerations.

Alderson, P. and Morrow, V. (2011) *The Ethics of Research with Children and Young People: A Practical Handbook.* London: Sage.

This text has useful suggestions if you are conducting research with children and young people.

Wiles, R. (2013) What are Qualitative Research Ethics? Bloomsbury.

A useful and short text covering areas including informed consent, approaches to research ethics including examples of ethical dilemmas.

Departmental Use

If a project raises particularly challenging ethics issues, or a more detailed review would be appropriate, the supervisor must refer the application to the Research Development Administrator via e-mail so that it can be submitted to the IOE Research Ethics Committee for consideration. A departmental research ethics coordinator or representative can advise you, either to support your review process, or help decide whether an application should be referred to the REC. If unsure please refer to the guidelines explaining when to refer the ethics application to the IOE Research Ethics Committee, posted on the committee's website.

Student name: PINAR ACET

Student department: Psychology and Human Development

Course: MPhil/PhD Psychology and Human Development

Project Title: DETERMINANTS AND OUTCOMES OF MINDFUL PARENTING

Reviewer 1

Supervisor/first reviewer name: Bonamy Oliver

Do you foresee any ethical difficulties with this research?

NO

Supervisor/first reviewer signature: *Bonamy Oliver*

Date: 18/12/2020

Reviewer 2

Second reviewer name: Dr. Dawn B. Male

Do you foresee any ethical difficulties with this research? No

Second reviewer signature:

Date: 04/01/2021

Decision on behalf of reviewers

Approved ☒

Approved subject to the following additional measures ☐

Not approved for the reasons given below ☐

Referred to the REC for review ☐

Points to be noted by other reviewers and in report to REC:

Comments from reviewers for the applicant:

Once it is approved by both reviewers, students should submit their ethics application form to the Centre for Doctoral Education team: IOE.CDE@ucl.ac.uk.