Unveiling parenting in Yemen : a study on maternal parenting practices in slums in Yemen

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To the woman who engraved in me that my education is my future, my mother.

To the man who taught me resilience, my father.

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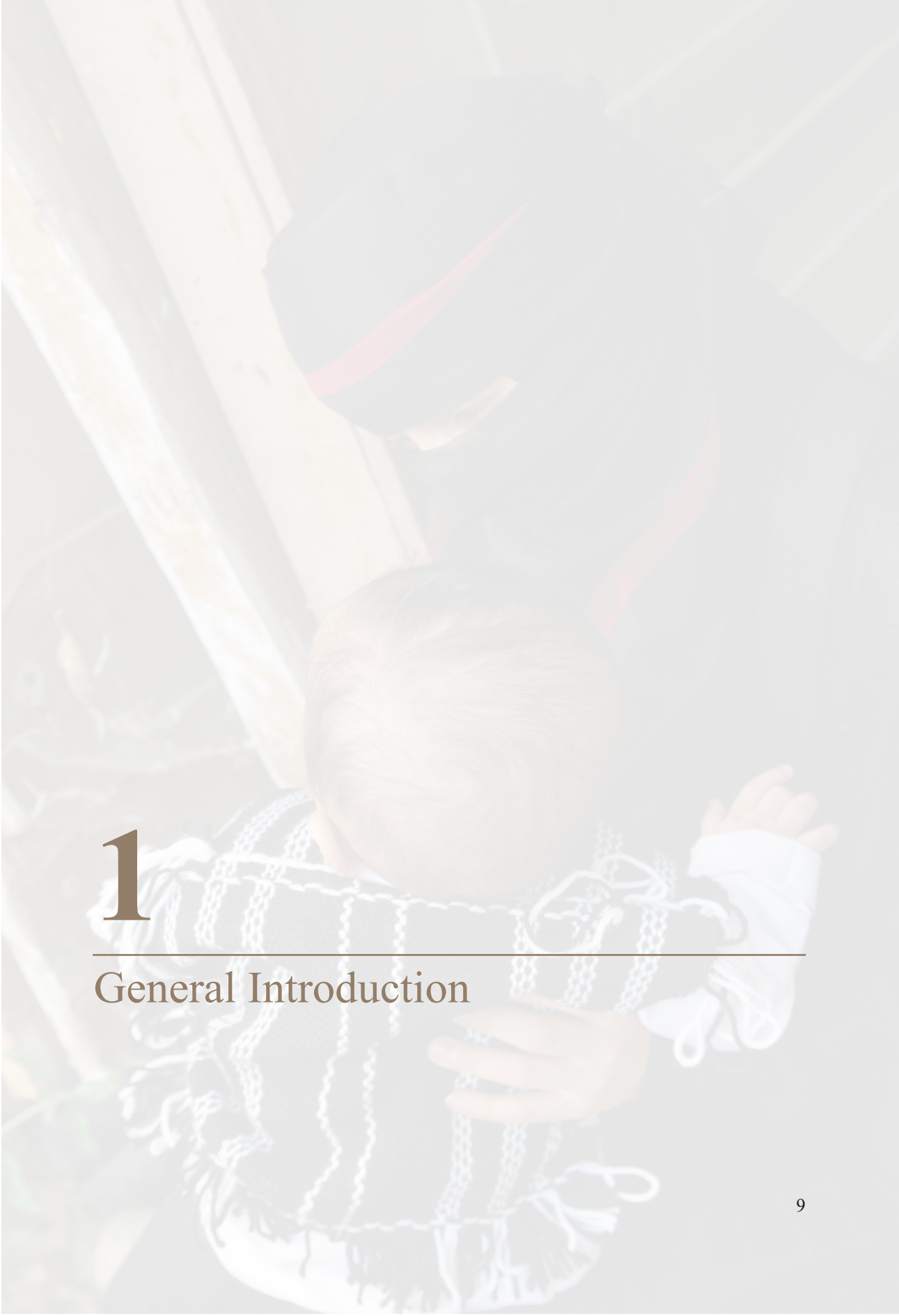

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General Introduction

Parenting Off the Beaten Track

Research on parenting has become the centerpiece of social scientists' established efforts to understanding child development for the past decades (Morris, Cui, & Steinberg, 2013; Collins, Maccoby, Steinberg, Hetherington & Bornstein, 2000). However, the mainstream research on parenting has revealed only part of the parenting picture as it mainly focused on Western high-income countries, with far less research in low- and middle-income countries (Knerr, Gardner, & Cluver, 2013; Henrich, Heine, & Norenzayan, 2010). The scarcity of parenting research is even more apparent when trying to zoom into subgroups within countries and regions where it is still unclear whether findings and models from mainstream research can be generalized to low-income families (Hill, Burdette, Regnerus & Angel, 2008) and specifically to low-income families in the developing world. The aim of this thesis is to shed light on parenting in slums in the Muslim Arabic culture of Yemen. Being one of the least developed countries in the world where the vast majority of its population live in rural and tribal areas (World population Review, 2018), having the 30th highest fertility rate in the world (World Population Review, 2018) at 4.45 children per woman (World Bank, 2019) and being a country where women are fully covered in a conservative gender-segregated culture, Yemen provides a truly 'off the beaten track' context for the research on parenting. The findings of this study will help to address the knowledge gap in parenting research on cultures "off the beaten track" in comparison to the available mainstream Western research.

Parenting and Child Outcomes

The concept of parenting in this study refers to the parent's everyday behavior towards their children. Effects of parenting on child outcomes are well documented in the literature,showing that parents' behaviors are associated with their children's physiological health, social, behavioral, emotional skills and educational achievement (Roopnarine, Krishnakumar, Metindogan, & Evans, 2006; Kiernan, & Huerta, 2008; Spera, 2005; Berg-Nielsen, Vikan, & Dahl, 2002).Two central dimensions of parenting that play important roles in child development are parental sensitivity, which is more on the relationship side of parenting, and discipline which is more on the control side of parenting. According to Mary Ainsworth's definition, sensitive parenting is the ability of a parent to notice their child's signals, correctly interpret those signals, and respond to those signals promptly and appropriately (Ainsworth, Bell & Stayton,

1974). Sensitive parenting is associated with the development of a secure attachment of the child (De Wolff, & Van Ijzendoorn, 1997; McElwain, & Booth-LaForce, 2006). Further, maternal sensitivity has been found to relate to more positive social (Heinicke & Guthrie, 1992), emotional (Kemppinen et al. 2006) and cognitive (Landry, Smith, Swank, & Miller-Loncar, 2000; Sroufe, Egeland, Carlson & Collins, 2009) development. For example, Kochanska (2002) found that parental sensitivity contributes to the child's positive, happy temperament, which increases the child's willingness to behave prosaically. Another study shows that maternal sensitivity is related to children's ability to regulate their emotions' expression or their externalizing problem behavior (Eisenberg, 2001). Studies also show that maternal responsiveness is associated with children's early language achievements (Tamis-LeMonda, Bornstein, & Baumwell, 2001).

Parental discipline refers to how rules and limits are imposed on the child (for a review, see Coie & Dodge, 1998) which could be implemented by using confrontive practices such as reasoning and negotiating or by using coercive practices such as punitive discipline (Baumrind, 2012). Research shows that confrontive parental discipline practices are associated with fewer child behavior problems (Kotchick & Forehand 2002), more self-confidence, and positive peer relations (Conger et al., 1992), while coercive parental discipline practices are associated with internalizing and externalizing problems (Alink, Cicchetti, Kim, & Rogosch, 2012; Taylor, Manganello, Lee & Rice, 2010; Rothbaum, & Weisz, 1994). Positive child outcomes of the confrontive practices, or what traditionally is referred to as authoritative parenting, are explained by the parents' ability to assert power in combination with warmth, nurturance, or open parent-child communication whereas parents who use authoritarian practices tend to be low in warmth, but high in control (Baumrind, 1971, 1978, 1997).

In the study of parenting and child development in the context of a religious community with a low average socioeconomic status, the literature points to several other parent factors that are relevant to consider as they are related to parenting quality, including maternal education (Diehl, 1997; Ispa et al. 2004; Tamis-LeMonda et al. 2004), maternal intelligence (Bacharach & Baumeister, 1998; Baharudin & Luster, 1998; Menaghan & Parcel, 1991; Yeates, MacPhee, Campbell & Ramey, 1983), and the marital relationship (Belsky, 1984; Conger et al., 1990; Levendosky & Graham-Bermann, 2000, 2001). Finding regarding religiosity show both positive (Carothers, Borkowski, Lefever

& Whitman, 2005; Mahoney et al., 2008) and negative associations (Bornstein, et al., 2017) with parenting quality, and warrants more study, especially in a religious community.

Parenting and Culture

Recent research on the role of culture in parenting shows that parenting is culturally constructed (Harkness, & Super, 2002) and that child development and well-being are strongly connected with culturally connoted parenting. Different studies showed that the effects of parental behaviors are not universal (Pinderhughes, Dodge, Bates, Pettit, & Zelli, 2000; Polaha, Larzelere, Shapiro, & Pettit, 2004; Lansford et al. 2005) as certain aspects of parenting vary across ethnic and minority groups. Moreover, the same parenting behaviors which are associated with positive developmental effects in some groups may not have the same effects in other groups (Coll, & Pachter,2002) .According to Bronfenbrenner's ecological systems model (1977), parenting and culture are considered fundamental parts of children's ecological environment. In his model, Bronfenbrenner refers to the context in which human development occurs as a set of proximal and distal "nested structures" which include the microsystems, mesosystems, exosystems, and macrosystems. Microsystems refer to those who most immediately and directly impact a child's development, including parents, school, religious institutions, neighborhood, and peers. Mesosystems consists of the interrelations between two or more microsystems where a child is part of those systems such as the relations between the child's family and school. Exosystems encompass the relations between two or more settings, but only one contains the child; e.g. home and the parent's workplace. Macrosystems refers to the cultural context (e.g., socioeconomic context, religion, and ethnicity) in which a child lives.

Interestingly, the macrosystems in which most studies have been done is generally homogenous where people from Western, educated, industrialized, rich, and demo cratic cultures (WEIRD) are mainly represented (Henrich, Heine, & Norenzayan, 2010). However, an increasing number of studies suggest that macrosystems are different in different cultures. Therefore, in order to gain deeper understanding of child development in different contexts, different macrosystems need to be studied. To contribute to the body of literature on parenting, this study investigates the macrosystem of a non-Western Muslim Arab culture, namely the Yemeni context which will be introduced in.

Chapter2 Within that context, we intend to focus on a subgroup that live in slum areas where to our knowledge, no study on parenting has been conducted before.

Parenting in Low Socioeconomic Status (SES) Contexts

Studies on families who live in low-SES circumstances show that negative child outcomes are associated with the socioeconomic status (SES) of families. SES generally covers three indicators which are income, education and occupational status (Bradley & Corwyn, 2002, Ensminger & Fothergill, 2003; Conger, Conger, & Martin, 2010; Bangdiwala et al., 2004; Krieger, Williams, & Moss, 1997). It is found that children of low-income parents are at risk for a variety of adverse outcomes, ranging from health problems to compromised academic and social development. For example in their Three-City Study of the wellbeing of children and families in low-income urban neighborhoods, Coley, Leventhal, Lynch, and Kull (2013) showed that children who live in lower quality housing showed higher emotional and behavioral problems than their counterparts in higher quality homes. Another study showed that children of low-educated African American mothers performed less well on measures of cognitive development than children with parents who are highly educated (Harris, Terrel and Allen, 1999). Children growing up in poor families experience what Parker, Greer, and Zucherman (1988) call "double jeopardy" which refers to the notion that those children are not only exposed to risks in their homes like child abuse, less supportive environments, family stress, and lack of psychosocial stimulation, but they are often at risk for later compromised behavioral and developmental outcomes as adults. "Double jeopardy" can even be more envisaged in further deprived contexts, referred to as "the poor and the poorest" (Abel-Smith &Townsend, 1965) where children live in slum areas in poor developing countries.

A slum is defined as a heavily populated urban area characterized by substan dard housing and squalor (UN Habitat, 2003) where dwellings vary from modest shacks to more permanent structures and where basic services and infrastructure are limited. A slum includes not only the old houses that have been deserted by the original dwellers who moved to new areas of the cities and later those houses were rented out to lower-income groups but also includes the massive informal settlements that are rapidly becoming the most visible manifestation of urban poverty in developing world cities (UN Habitat, 2003). Overcrowding, insecure residential status, inadequate access to re

sources including clean water, sanitation, health care, electricity, and education, are some of the dire circumstances of slums. Unfortunately, children, being the most vulnerable because of their age, are deprived of basic rights of survival, development and protection and are marginalized in difficult conditions (Ambey, Gaur, Gupta, & Patel, 2013). For example, slum children, who have the chance to enroll in a school, often drop out (Chugh, 2011), experience physical abuse (Swahn, Culbreth, Staton, Self-Brown, & Kasirye, 2017), poor nutritional status (Srivastava, Mahmood, Srivastava, Shrotriya, & Kumar, 2012), and high rates of communicable diseases (D'souza, 1997) which lead to long-term negative effects on their development. However, despite living under high-risk circumstances, a significant number of children living in urban slums show resilience (Kabiru, Beguy, Ndugwa, Zulu, & Jessor, 2012).

The Role of Parenting in Resilience

Resilience is defined as "a class of phenomena characterized by good outcomes despite serious threats to adaptation or development" (Masten, 2001, P, 228). Prerequisites of resilience are the presence of adversity and of protective factors that assist a person to effectively overcome risks and achieve positive outcomes (Buckner, Mezzacappa, & Beardslee, 2003; Fergus & Zimmerman, 2005). Studies show that positive attributes of social environments like connections to competent and caring adults in the family and community are usually among the main factors associated with resilience (Masten et al., 1990; Werner & Smith, 1992). In slum contexts, this has also been observed. For example, Mullin and Arce (2008) found that families who live in poverty rely not only on their immediate family for support but reach out to their extended family, their neighborhood and the community in general and by using those three social support systems as resources, those families seem to manage better. Another study in urban slums in Kenya presented case studies showing that children who had regularly received social support from their extended family did better, and emerged positively out of adversity than those who did not have such support (Ombati, & Ombati, 2016). On a more proximal scale, the quality of the parent-child relationship in general, and the parents' capacity to be sensitive and emotionally responsive specifically (Ainsworth, Bell, & Stayton, 1974), is an important social factor in children's resilience when facing adverse circum stances. In their 37-year longitudinal study among children exposed to four or more major risk factors, Werner and Smith (1992) found that the children who

developed well have more likely experienced nurturing caregiving in childhood. Another study found that emotionally responsive parenting attitudes can predict children's resilient status (Wyman et al., 1999). Moreover, sensitive parenting could play a protective role against the risks associated with adverse effects of social deprivation as it was strongly related to child adjustment in school for children who live in adverse low-SES environments (Pettit, Bates, & Dodge, 1997; Herbers et al., 2011). Good quality parent–child relationship played a role in determining resilience by influencing internalizing behaviors (Fergusson & Horwood, 2003). And on an even more proximal scale, mothers were identified as the most important family member identified with resilient children and adolescents (Werner, 1990). To highlight the mother's essential role in dampening the effects of adverse circumstances, this dissertation will focus on this most proximal social source of resilience through the lens of her parenting qualities.

To have a more complete picture of the factors that play a role in children's development in general and the role of sensitive parenting in the lives of children in slum areas in particular, many questions need to be answered. How can some parents who live in those circumstances still manage to parent their children well even when challenged by many difficulties? What can be learned from those parents to help the ones who cannot manage? What kind of intervention programs can be designed for that specific group of parents to help them raise their children with fewer difficulties in those circumstances? One effective way to find answers and learn more about communities is by conducting observational methods, which are valuable methods to get a closer look on how parenting is being conducted in "off the beaten track" cultures (Mesman, 2018).

Video Observational Measures

There are not yet practical guidelines for designing parenting studies in 'new' cultures, different than the Western samples, where measures of parenting constructs have not been tested previously (Stewart, & Bond, 2002). In our study we aimed to mea sure parenting practices in Yemeni slums using video observational methods.

In social science observational measures are used to conduct systematic, detailed observation of behavior and talk which includes watching and recording what people do and say (Mays & Pope, 1995). Another important point about observational methods is the possibility of conducting them in natural settings, which is why this is also referred to as "naturalistic research" (Mays & Pope, 1995). However, observational

research on parenting in non-Western countries is still very rare (Mesman, & Emmen, 2013) for many reasons of which accessibility to those cultures (Mesman, 2018) and understanding what works and what does not work in terms of research measures are still challenging. It is the goal of this study to explore the possibility of using video observational measures in slums in a Muslim Arab family context where the majority of women are fully covered and therefore, filming them is a challenging task.

Study Objectives

Because this is the very first study of its kind in Yemen, the first aim is to examine if we can conduct parenting observational research in this "off the beaten track" Muslim Arabic culture context in a meaningful way, and to discuss the challenges of conducting this type of research in a different context where women are fully covered. In that context, important knowledge on whether some of the Western research measure such as the video-observational measures could be applicable in strict culture to women's revelation of identity through filming or even audio-taping. We expect that our observations will be of value to those conducting research in any less studied culture, and may also help to offer useful guidelines for planning research in that part of the world. The second aim is to answer questions about parenting factors in that context and examine if they would yield similar results to the available Western-sample-based research. We will investigate a) Whether parenting factors like parental education and intelligence are potential unique predictors of parental sensitivity in mothers in slum areas in Yemen,and further test partner conflict as a potential mechanism within this relation; b) If maternal harsh physical parenting, maternal religiosity, and child behavioral problems are interrelated and whether maternal religiosity plays a predictive or a moderating role in that relationship.

Outline of The Dissertation

Chapter 2 gives background information on the Muslim Arab Yemeni context in which this study takes place, as well as the specific location of the current study. **Chapter 3** examines the feasibility of assessing maternal sensitivity using video within restricted veiled Muslim Arabic culture, and investigates whether maternal sensitivity scores thus obtained would be meaningfully related to other parenting dimensions and social-economic factors. **Chapter 4** tests the unique effects of education and intelligence

on maternal sensitivity and investigates if partner conflict mediates the associations between education/intelligence and sensitivity. **Chapter 5** examines the interrelation between maternal harsh physical parenting, maternal religiosity and child behavioral problems and tests whether maternal religiosity plays a predictive and/or moderator role in maternal harsh parenting and child behavioral problems. **Chapter 6** integrates the main results of the dissertation followed by a discussion, the main limitations, implications and suggestions for further research.

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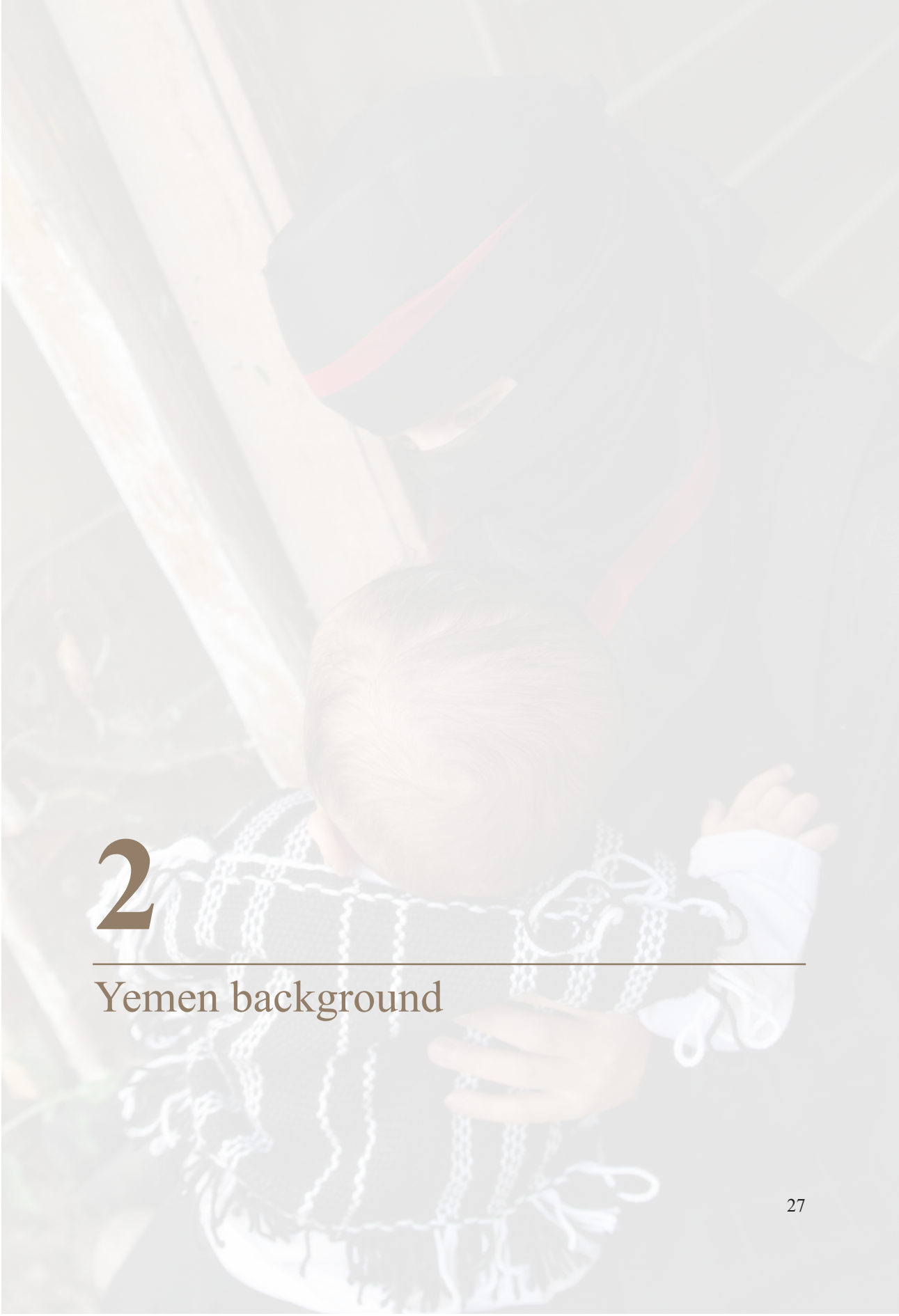

2

Yemen background

Yemen Background

Yemen is a country of crucial importance in the Middle East and yet general knowledge about it is highly limited (Al-Rasheed, & Vitalis, 2004). The Republic of Yemen is located at the southwest tip of the Arabian Peninsula. It is bordered with the Red Sea in the west, the Sultanate of Oman in the east, Saudi Arabia in the north, and the Arabian Sea in the South (Google maps, 2016). North of Yemen was ruled by the Zaidi sect, which remained until the 1962 revolution which resulted in the formation of the Republic of Yemen. South of Yemen was freed from the British colonization in 1967. The two countries united in May, 1990

Map of Yemen: Google maps

In January 2011, Yemen became part of what was called 'Arab Spring' where protesters were calling for the end of the 33-year rule by the president Ali Abdallah Saleh. In November 2011, Saleh signed an agreement brokered by the UN and the Gulf Co-operation Council where he formally transferred power to his deputy, who became Yemen's president for a transitional period of two years. The political transition failed as the new president struggled to deal with a variety of problems, including the continuing loyalty of many military officers to the former president, the controlling of some parts of the country in the north by the Houthi movement which is Yemen's Zaidi Shia Muslim minority that is believed to be backed up militarily by the regional Shia power in Iran, a separatist movement in the south, attacks by al-Qaeda as well as corruption, food insecurity and unemployment.

In January 2015, the Houthis and security forces loyal to the former president attempted to take control of the entire country, forcing the president to flee out of the country in March 2015. In response, Saudi Arabia and eight other mostly Sunni Arab states began an air campaign to restore Yemen's legitimate government. Since then, Yemen, which was already one of the Arab world's poorest countries has been shattered by a war between forces loyal to the internationally-recognized government of the president and those supporting the Houthi rebel movement.

Yemen is now facing the world's largest humanitarian crisis where 82% of its population needs humanitarian assistance and protection. Out of that percentage, 10 million need 'urgent assistance' which means they need aid to sustain their lives, at least three million people have fled their homes, and every 10 minutes a child under age 5 now dies of preventable causes (United Nations office for the coordination of humanitarian Affairs, 2017).

Economic Situation

Yemen's population is one of the fastest growing populations in the world, with a 3.5% population growth in 2006, compared to a 1.2 percent world average (United States Agency for International Development, 2008). In 2004, the population of the Republic of Yemen was 19.685.161 (National Information Center, 2013). However, according to the latest United Nations estimates, the population of Yemen had reached 26.83 million in 2015 (World Bank Group, 2019). Yemen ranks 178 out of 189 countries on the Human Development Index (United Nations Development Program, 2018) which is an index of life expectancy, education, and per capita income indicators. More than 50% of the population live in conditions of contemptible poverty, with poverty more prevalent in rural areas (United Nations Development Program, 2013). Since the start of the war in 2015, Yemen's economy had contracted by around 50% (World Bank Group, 2018), poverty rate has increased to an estimated 71 to 78% (World Bank, 2019) and in the absence of food assistance, 20 million people face food insecurity of which 8.4 million people are in the brink of famine (World Food Program, 2018; Office for the Coordination of Humanitarian Affairs, 2019).

Informal Settlements

Informal settlements in Yemen are usually labeled as "ashwa'i" which would

also include slum areas (El Shorbagi 2007). "Ashwa'i" is a word that describes a non-residential area that is built mostly without a license and may lack the most basic needs of a decent life. "Ashwa'i" settlements often violate the construction laws and spread in the outskirts of cities conflicting with the natural trends of growth and development of those cities. According to El Shorbagi (2007), "Ashwa'i" settlements are quite heterogeneous; either in comparing key physical features among different informal areas or even inside an area.

Yemeni "Ashwa'i" informal settlements harbor 61% of the population of Yemen (World Bank, 2014). Multidimensional deprivation characterizes those "Ashwa'i" settlements. This means that poverty is not only related to inadequate income but also to low education, inadequate livelihoods, large number of children per family, bad housing conditions, and poor health. This is based on the notion that households facing multiple deprivations are expected to be in worse conditions than is suggested by income poverty measures only (World Bank, 2015). What characterizes "Ashwa'i" settlements in Yemen in general is that they have a wide nature of cumulative deprivation, characterized by neglected living conditions, poor sanitation conditions which lead to risks to health and life in general, traffic accidents, air pollution, natural disasters, and exclusion from employment opportunities, political representation and legal and social protections (World Bank, 2006). Houses are built from whatever building materials are available. This can vary mainly from cement brick, wood or even sometimes fabric . Houses can therefore be very small and usually full of too many people according to the space available (World Bank, 2006). Those houses are characterized by poor conditions such as bare walls, rooms (even toilets) without doors, and poor or even absent sanitation systems (Madhok, 2016) which we observed exactly in our study during the observational visits. Just like dwellers of slums around the world, nearly all dwellers of the "Ashwa'i" settlements in Yemen are engaged in informal employment which is linked to lack of job protections, informal workers are often the first to lose their jobs during economic crisis (Rockefeller Foundation, 2013).

Family structure and size in the "Ashwa'i" settlements is not much different-than that of Yemeni families in general where family size is large and usually structured hierarchically based on age and sex. This is in fact the case in the overall Arab family structure where the young are subordinate to the old and females to males (Barakat, 2003). Family size is on average larger among the poor than the non-poor. Among the

countries in the Middle East and North Africa's regions, Yemen's total fertility rate remains the highest at 6.2 in 2005 (Roudi-Fahimi, & Kent, 2007) and at 4.45 in 2019 (World Bank, 2019).

Women

Yemeni social structure preserves a distinctive split between the public and private spheres. Women are usually in charge of the house, and therefore less active in the public sphere. Decisions made outside the home belong to men otherwise a permission of the man of the house is needed. Women tend to live under the authority of a man (e.g. a father, a brother, a husband) during their entire lives (Al-Mutawakel, 2005). According to the Global Gender Gap Index which inspects the gap between men and women in four essential categories; economic participation and opportunity, educational attainment, health and survival and political empowerment, Yemen was ranked 133 out of 169 countries (Bekhouche, Hausmann, Tyson & Zahidi, 2013).

As part of their culture and religion, women in Yemen cover their bodies from head to toe , heads with a scarf and their faces with a veil called Hijab when they are outside their homes and specifically when men are around This includes women putting the veil on also at home if there are men present other than men from the immediate family like a father, a brother or an uncle. In a veiled culture, photographing women is a taboo and having a video camera at home to film women is a great challenge. Yemeni people are often suspicious about what one would do with the photos and they impose many rules around taking women's pictures like taking prior permission from the women's male relatives such as fathers, brothers or husbands – otherwise it could create problems between tribes (Shaher, 2011).

Marriage, childbearing and child rearing in Yemen determines life for nearly all women resembling the situation of women in general in the Middle East and Northern African regions (Roudi-Fahimi & Kent 2007). The average age for females at marriage is below 17 years old. In addition, in a culture that has the ideology of male authority (Jurdi, & Saxena, 2003), strict gender roles are socially assigned for mothers and fathers. A father traditionally embraces authority and responsibility (Barakat, 2003), and makes most of the decisions since he is the family's provider. Thus, fathers spend most of their time outside home either at work, the market (Milanovic, 2008) or socializing with their guests while consuming qat, a leaf that has mild amphetamine (Meneley,

2007). This obviously leaves the task of raising children and parenting as the mother's main role (Yadav, 2010).

Parenting

"Heaven is under mothers' feet" is a statement in the Muslim world believed to be said by the prophet Muhammed about the rewards of childrearing hard work undertaken by mothers. Even though this statement is interpreted by many Muslims, particularly the Arab Muslim population as guidance of placing the responsibility of parenting mainly on the mother's shoulder, little is known so far on how that hard work is being carried out. Studies of parenting in the Arab world are limited and are almost non-existent in Yemen.

Broadly speaking, parenting styles were classified by Baumrind as authoritarian, permissive and authoritative (Baumrind, 1991). Notably, this classification was based on research among mainly American parents, and these parenting styles have been predominantly studied in Western contexts. Authoritarian parents tend to control the child, and obedience is a major ingredient in their parenting style whereas autonomy is not (Baumrind, 1966; Reitman, Rhode, Hupp, & Altobello, 2002). Permissive parents encourage their children's autonomy and allow them to make their own decisions. However, confrontation with their children is avoided as exercising authority is not of importance to parents which in return creates poor control of their children (Baumrind, 1991; Reitman et al., 2002). On the other hand, authoritative parents tend to have good nurturing skills and apply moderate parental control to allow their child become more autonomous (Baumrind, 1966,1991; Reitman et al., 2002). In this parenting style enforcing limits, reasoning, positive reinforcements, and discussions are very important ingredients of parenting. In her recent work, Baumrind (2012) argues that while permissive parents avoid asserting power, both authoritarian and authoritative parents are similar in terms of asserting power but are different in how that power is asserted. The kind of power authoritarian parents assert is described as coercive power which is arbitrary, peremptory and relies on threats and commands, while authoritative parents use confrontational power which is open to negotiations and reasoning and allows children to have choices.

In their distinctive literature review on parenting in the Arab world, Dwairy et al. (2006) state that parenting styles differ across Arab countries, with parenting styles in

traditional countries such as Yemen and Saudi Arabia tending to be more authoritarian than parenting styles in modern countries such as Lebanon and Jordan. This is in line with the results of several studies on parenting in Yemen which showed the extensive use of aggressive punishment. One study carried out in rural and urban locations, estimated that approximately 80% of the mothers in rural areas and 59% of urban mothers reported the use of corporal punishment to discipline their children (Alyahri, & Goodman, 2008). In a similar study, results show that 89% of Yemeni caregivers reported that their children had experienced psychological aggression (Lansford & Deater-Deckard 2012). Another study by Al-Thabhani it was found that 88% of urban and rural children reported that their parents' main style of discipline when they make mistakes was punishment (Al-Thabhani, 2004). Based on the above limited literature on parenting in Yemen, research suggests that corporal punishment, including harsh corporal punishment, is common in Yemen.

Research Location

Several attempts of accessing "Ashwa'i" settlements in different Yemeni governorates were carried out, of which some did not work due to the nature of the study's set up and methods. The study measures included video-observation tasks, questionnaires, and a test-based task. Initially, the "Ashwa'i" settlements in Sanaa, the capital city of Yemen, were targeted and a local non-government organization (NGO) whose work was based there was contacted. After discussing the study aims and methods, an based there was not hopeful it would be a successful mission. Then a decision was made to conduct the study in Taiz governorate, located in the South West of the Republic of Yemen, for many reasons. First of all Taiz was politically more stable than some of the other governorates at the time of the data collection and second Taiz was known for it being Yemen's capital of culture and education in 2013 (Alhadath Alarabi, 2019), which might provide a less culturally conservative context towards filming women comparing to some of the other more conservative governorates like Sanaá, Mareb or Aljob governorates. Moreover, Taiz governorate was considered the most densely populated governorate in Yemen; 12% (2.4 million) of Yemen's population lives in this governorate (National Information Center, Yemen, 2013). Taiz had 23 districts of which three were selected for the study's data collection; Ta'iziyah, Salh and Mawiyah. As of 2004, Ta'iziyah District had a population of 198,169 inhabitants, Salh District had a population

of 149,394 people and Mawiyah District had a population of 129,765 inhabitants (National Information Center, Yemen, 2013). Being one of the fastest countries in terms of population growth where its youth who are under 15 years old constitute nearly 50% of its population (International labor office, 2014), Taiz governorate provided a distinctive context to study how Yemen's youngest generation is being raised.

Based on all the reasons, the first author contacted her local network in Taiz governorate, which included employees of national and international NGOs that worked in child development. The goal was to locate a local partner that was already working in slums in Taiz and ideally also had professional experience in conducting data collection and research. A local NGO in Taiz, aiming to achieve social justice through its projects that could create equal employment opportunities, reduce unemployment and improve living conditions for the poor, was selected. . The NGO's projects included creating opportunities for poor families in slum areas to have more income through vocational training of different skills like carpeting, painting, plastering, etc. Other projects focused on involving poor women in creating their own businesses by targeting skills they have like cooking, sewing, hairstyling or by training them on those skills to empower them and to increase their income. The NGO was well known for its professional research work in slum areas in Taiz and two other Yemeni cities. The NGO was also already a local partner for different international organizations such as United Nations International Children's Emergency Fund (UNICEF) and the World Health Organization (WHO). The NGO was contacted and its head has accepted the challenge of filming women in the "Ashwa'i"s that her NGO worked in. The NGO head visited families to explore their reaction to the study's video observation methods and from 100% families she visited, 40% agreed to be filmed. Based on that encouraging result, training of the NGO head and her assistant was initiated. This was done by extensive contact through video and phone calls. The questionnaires and video observation tasks were discussed in depth. Afterwards, the language of the questionnaires was modified according to the Taizi dialect and then back-translated. To ensure the observation tasks were to be performed well, the first author also as an example filmed a child-mother interaction of one of the study's observational tasks (don't touch task) with a Syrian refugee family who was living in a camp in Leiden. The observation task was discussed thoroughly with the NGO staff and afterwards, the pilot study was launched. Five families were visited, interviewed and filmed. Challenges from those visits were discussed, and based on feedback from the

NGO's head the language of the questionnaires was adapted further to suit the background and educational level of the participants who mostly were illiterate. Based on the successful pilot study, data collection was launched and conducted in Taiz governorate, which provided parenting research with unique data on a topic that is less researched in that part of the world and even less in poor contexts like of the "Ashwa'i" settlements in Yemen.

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3

Observing sensitivity in slums in Yemen: the veiled challenge

Khadija Alsarhi, Rahma, Mariëlle J.L. Prevoo, Lenneke R.A. Alink & Judi Mesman

Abstract

This study represents the first video observation of parenting practices conducted in Yemen, where filming women is a taboo, and women are generally fully veiled, showing only their eyes, in the presence of strangers. A total of 62 mothers and children (aged 2–6 years) were filmed in their homes for 15 min during free interaction. The mothers' veils were not experienced as hampering the coding of sensitivity. Consistent with the low socioeconomic context, average sensitivity levels were low, but over 25% of mothers were rated as (very) sensitive. About half of the mothers elected to have their child do household chores, which in turn was related to lower levels of sensitivity. Observations revealed frequent looking at the camera. Almost half of the mothers verbally expressed insecurity about the videotaping, and a third expressed awareness of being filmed. Interestingly however, these behaviors were unrelated to
Ainsworth ratings of maternal sensitivity.

Keywords: Maternal sensitivity, Yemen, slums, video observation.

Observing Sensitivity in Slums in Yemen: The Veiled Challenge

The country of Yemen provides a particularly interesting cultural context for the video observation of caregiver sensitivity 'off the beaten track', because most women cover their bodies and some cover their faces as part of their culture and religion when they are outside their homes, but also at home when strangers are visiting. Further, children spend most of their time outside without their mothers (who remain inside) and can thus not easily be filmed in naturalistic dyadic interaction. As part of a larger study on parenting in relation to culture and poverty, the current study examines the feasibility and implications of using video to measure maternal sensitivity in the veiled context of Yemeni slums.

Formerly divided into two nations, North and South Yemen, the Republic of Yemen is located at the southwest tip of the Arabian Peninsula. The two countries united in May, 1990 and became a constitutional republic. The Yemeni population, which is mainly of tribal origin (Fanak, 2016), is predominantly Muslim of whom 70% follow the mainstream Sunni Islam while 30% are Shiite (Armanios, 2004) who follow the Zaidi branch of mainstream Shiism. Family size is the highest among countries in the Middle East and North Africa's regions, with a fertility rate of 6.2 in 2005 (Roudi-Fahimi, & Kent, 2007), which needs to be seen in light of the high infant mortality rate standing at 43 deaths per 1,000 live births (Ministry of Public Health and Population & Population Central Statistical Organization, 2013), which is substantially higher than elsewhere in the region. Since 2015, Yemen which is already one of the Arab world's poorest countries (ranking 133 out of 169 countries in the Human Development Index; UNDP, 2010) has been shattered by civil war. Yemen is now experiencing the world's largest humanitarian crisis where 82% of its population needs humanitarian assistance and protection. The current study took place in slum areas in Taiz governate, and was conducted before war activities threatened safety in this area as part of a larger study on socioeconomic deprivation and parenting. The informal settlements in Taiz governate are characterized by extreme poverty, lack of education, bad housing conditions, overcrowding, poor health, and exclusion from employment opportunities, political representation and legal and social protections (World Bank, 2006).

In Yemeni culture, the family is the center of life. Like in most Arabic countries, it is through the family institution that religion, social class, and cultural identities are inherited (Barakat, 2005). Consistent with the situation in the Middle East and Northern

African regions (Roudi-Fahimi & Kent 2007), marriage, childbearing, and child rearing in Yemen define life for nearly all women. Nevertheless, little is known so far on the nature of maternal caregiving in this context, because observational studies of parenting in the Arab world are limited and are non-existent in Yemen. The few studies on parenting in Yemen reported extensive use of corporal punishment (Alyahri, & Goodman, 2008), psychological aggression by caregivers such as yelling at the child or calling the child an insulting name (Lansford & Deater-Deckard, 2012), and punishment as parents' main style of discipline (The Higher Council for Motherhood & Childhood, 2004). However, there is also evidence that parenting in Yemen shows mixed and inconsistent patterns of permissive and authoritarian styles, which may be due to the increasing influence of Western culture on the Yemeni tribal system (Dwairy et al, 2006).

The current study represents the first video-observation of parenting practices to be conducted in Yemen. It provides a rare opportunity of observing parenting closely in a culture where filming women is a taboo and having a video camera at home to film women is a great challenge.

Women are usually less active in the public sphere, and cover their bodies and faces when they are outside their homes and specifically when men are around. This includes women putting the veil on also at home if there are men present other than men from the immediate family. Therefore, children are used to seeing their mothers always veiled outside the home and sometimes at home. With that veiled context, many challenges may arise in the observation process of this study. In addition to the main challenge of mothers only showing their eyes in the video observations, it was expected that women would only be filmed at home because it would provide them the privacy they needed.However, in everyday life, children usually spend a lot of time playing in the streets, rather than in the home. When filming interactions between mothers and children the challenge was to create settings in the home that did resemble daily life interactions. The goal of this study was to examine the feasibility of assessing maternal sensitivity using video within these constraints, and to investigate whether maternal sensitivity scores thus obtained would be meaningfully related to other parenting dimensions and social-economic factors.

Method

Sample

Participants were recruited via a local NGO working in the Taiz governate aiming to achieve social justice through projects that can create equal employment opportunities, reduce unemployment and improve living condition for the poor. An employee of the NGO conducted data collection for this study as part of the NGO's current work in the slums. After two months of data collection, the NGO decided to terminate its own field work in the slums for security reasons associated with the current war in Yemen. This of course also meant the end of their work for this research project. The NGO recruited local facilitators to help recruit new families. Local facilitators were women from the community who could facilitate the introduction of the NGO and the research project to potential participants. Mothers were informed about the research project and its objectives of learning more about family life and child development in Yemen. Afterwards, mothers were asked for their initial consent. Mothers were included if they had been living in the slum area for at least 6 months, and had at least one child between 2 and 6 years of age. The final sample consisted of 62 mother-child dyads (52% girls). The study protocol was approved by the ethics committee of Leiden University.

It proved to be impossible to determine maternal age as most of the mothers did not know how old they were. Mothers did know their children's birth dates. The participating children's mean age was 38.69 months (*SD* = 10.09; Range = 24 to 60 months). Only half of mothers could read and write, and more than half of the mothers (53%) had no education at all, 16% completed only primary school, 26% completed secondary or high school, and 5% had a college degree. The average number of children in the families was 3.19 (range: 1-10). None of the mothers had a job. Three mothers were divorced, four were widows and 55 were married. Out of the two-parent families, 36 fathers (58%) had jobs. In addition, almost half of this sample lived below the minimum standard income, and the rest were just above minimum. These characteristics are representative of the general population of Yemen where the majority of the general population is (extremely) poor, given that Yemen ranks 178 out of 189 countries on the human develop ment index (HDI). In addition, 60% of the urban dwellers in Yemen live in slums.

Video Observation Procedure

The data collector was trained and supervised via distant phone-call training by the first author (who is Yemeni). Based on four pilot visits, she commented on and edited the questionnaire and the observational tasks and procedure according to the particular cultural context. Mothers and children were videotaped during a 15-min episode of a daily activity that they usually do together. Mothers covered their bodies with a long black robe called 'Belto', their hair with a hijab that is called 'Magramah', and a veil that covered their faces. During the video observations three mothers wore only the robe and the hijab but left their faces uncovered. Due to the high illiteracy rate, the questionnaire was carried out in an interview format. The whole home visit took around 2 hours. All participating mothers and their husbands (in the case of two-parent families) signed informed consent forms for their own (mother's) and/or their child's participation in the study and were asked specifically if they agreed with audio and video recording of parts of the home visit. For those who could not read or write, the consent form was read out verbatim and their consent was videotaped. Families were compensated with a small gift of the value of US$6.50. However, in this very deprived context, the NGO found it more appropriate to buy food items worth US$6.50 as a gift.

Video Coding

Maternal sensitivity was coded using the Ainsworth sensitivity scale (1-9), and scores were given for warmth (0-4), physical contact (0-2), verbal expression (0-2), and camera awareness (looking at camera, talking about being filmed, expressing insecurity about being filmed, each 0-2). See the Introduction to this special issue for details on these scales. It is important to note that smiling could not be established easily for these veiled mothers, although it was sometimes inferred from the mothers' eyes or from a movement in the veil around the mouth area. But mostly, warmth was identified from other behavioral elements, such as stroking the child or using terms of endearment. Further, based on the first viewings of the videos, it was decided to add one more observation scale that assesses to what extent mothers chose chores as the main activity during the free interaction. Chores included household tasks such as washing, cleaning, tidying, sweeping, folding, etc. This scale was added as a number of mothers decided to ask their children to do chores as the main activity for their interaction with their children. This measurement was coded on 3-point scale: 0 = no chores (or only minor brief ones), 1 =

some chores (but not as main activity), 2 = many chores (more than half of the video).

The first author (from Yemen) was trained by the last author, an expert coder of the Ainsworth scales and the other scales. To determine inter-coder reliability, 15 videos were randomly selected and then coded by the first and last author, revealing intercoder reliabilities (intraclass correlations, absolute agreement, single rater) of > .70 for all scales. The first author then proceeded to code all the scales for the rest of the sample.

Self-report Measures

Social support was measured using a self-report questionnaire focusing on social support mothers receive from family and non-family members. The questionnaire contains nine items exploring the emotional and materialistic support received. Each of the questions is answered on a 3-point scale, where the value 1 is defined as 'not at all', 2 as 'sometimes', and 3 as 'always'. Maternal education was scored on a 5-point scale. Maternal education was divided into '0 = no education', '1= primary school', '2 = secondary school', '4 = high school', and '5 = college degree'.

Results

Descriptive statistics for all variables are displayed in Table 1. The mean score on maternal sensitivity in this sample was M = 4.34 (SD = 2.54), which is somewhat below the scale midpoint of 5 on the 9-point Ainsworth scale. On average, mothers in this sample were somewhat more insensitive than sensitive. The distribution of sensitivity scores is presented in Figure 1. Although more than half of the mothers (58%) were indeed (mostly) insensitive to their children's signals, still 15% of the mothers were very sensitive.

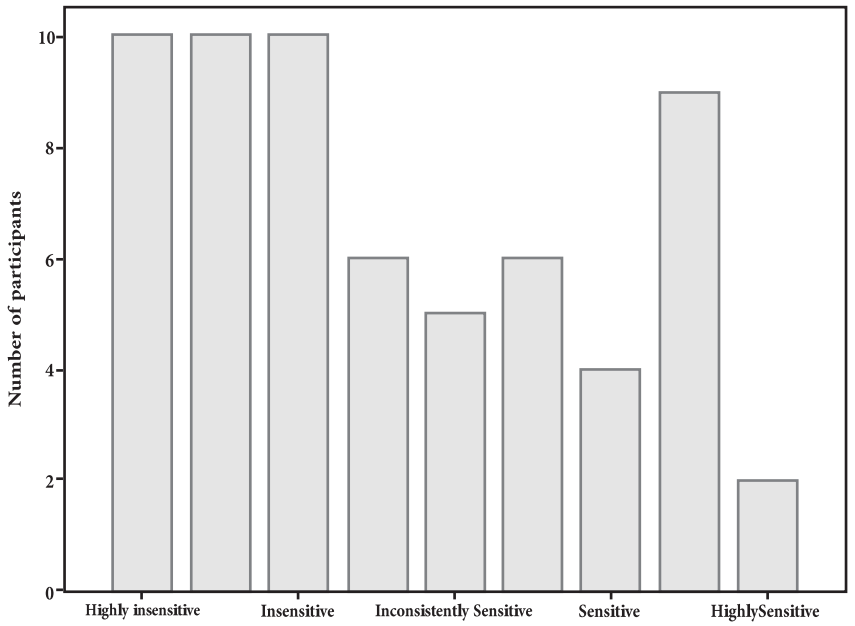

Figure 1. Distribution of maternal sensitivity scores

The mothers showed high levels of physical contact with their children, but very low verbal expression, and also rather low levels of warmth. Regarding camera awareness, looking at the camera happened frequently (more than 90% of the mothers looked at the camera, and many multiple times), 40% expressed insecurity about how well they were doing and 32% talked about being filmed to their children or asked their children to perform for the camera (e.g., singing, dancing, etc.). Even though we did not measure child behavior, anecdotally it was notable that some children were amazed, amused, or entertained by the presence of a video camera at home, some stared or whispered to their mothers, while a small number of children seemed afraid, and froze in front of the camera.

Mothers were asked to do what they would normally do with their children. Some mothers created an interaction with their children where they chose to play, cook, comb their children's hair, do homework, watch and encourage their children play with other present children, and talk with their children about topics of interest to their chil dren. On the other hand, for some mothers the task of choosing an activity with their

children was a challenge as their children usually play outside the home during the day. To avoid the situation of no interaction, the research assistant suggested some interaction activities based on advice from some mothers and community facilitators, including chores like folding clothes, cooking, or playing. This was helpful to some mothers who decided on one suggested activity and performed it as they would do on a daily basis. However, some mothers took those examples as literal instructions even though the example would be something they usually might not do with their children. This was reflected in the awkwardness of the situation during the activity for those mothers and their child alike where activities clearly did not approximate an actual everyday interaction; for example asking children to do things for the purpose of being filmed like in some cases asking children to do multiple chores non-stop during the 15 min. observation. Twenty one percent of the mothers asked their children to perform chores for more than half of the video while 31% of the mothers suggested some chores but the chores were not the main activity in the video (leading to an average score of 0.72 on the 0-2-point scale, see Table 1).

Table1. Descriptive statistics

Variable (potential score range)	M	SD
Maternal sensitivity (1-9)	4.24	2.55
Looking at the camera (0-2)	1.74	0.63
Expressing insecurity (0-2)	0.53	0.72
Talking about being filmed (0-2)	0.39	0.61
Maternal interaction focused on chores (0-2)	0.73	0.79
Maternal physical contact with child (0-2)	1.32	0.83
Maternal verbal contact with child (0-2)	0.74	0.70
Maternal warmth (0-4)	1.84	1.35
Mother focused on child doing chores (0-2)	0.73	0.80
Maternal education (1-5)	2.05	1.34
Maternal perceived social support (4-16)	8.39	2.01

Finally, there were many people present besides the mother and the target child. The number of people present at the location of the video observation apart from the mother and the target child was high (M = 6.49, SD = 3.43). People present were not only family members (i.e., other children of the mother, her husband, relatives) but also curious neighbors and acquaintances. People present were allowed to stay in the observation location but not in the scene in front of the camera. This was in line with the wishes of many female relatives and neighbors who did not want to appear in the video. This however, created some awkwardness for some mothers. In some of the videos, some of the children and adults present gave instruction either to the child or the mother on how they should behave in front of the camera. However, the number of people in the videos was not related to any of the observed variables except for verbal expression to the child, $r(61) = .28$, $p < .05$.

Regarding relations between sensitivity and other maternal behaviors and characteristics (Table 2), a positive correlation was found with maternal warmth, $r(60) = .65$, $p < .001$. There were no significant correlations with involvement, physical and verbal interactions ($-00. < r < .18$, $ps > .17$). Moreover, the more mothers focused on chores, the less sensitive mothers were, $r(60) = -.41$, $p < .001$. Interestingly, none of the camera-related behaviors (looking at the camera, expressing insecurity, talking about being filmed) were significantly correlated with sensitivity ($ps > .17$). Finally, maternal sensitivity was related to higher maternal education $r(60) = .41$, $p < .001$, and higher experienced social support, $r(60) = .35$, $p < .001$. An additional multiple linear regression analysis was performed to predict maternal sensitivity by maternal education and social support. Maternal education and social support both explained a significant proportion of variance in maternal sensitivity, $R^2 = .23$, $F(2,59) = 8.60$, $p < .001$.

Table 2. Correlations between sensitivity and other variables

	1	2	3	4	5	6	7	8	9	10
1 Maternal sensitivity	—									
2 Looking at the camera	-.18	—								
3 Expressing insecurity	-.17	-.16	—							
4 Talking about being filmed	-.18	.05	.08	—						
5 Maternal interaction focused on chores	-.41**	.09	.17	.05	—					
6 Maternal physical contact with child	.14	.26*	-.18	.0	-.36**	—				
7 Maternal verbal contact with child	-.00	-.18	-.05	.24	.05	.23	—			
8 Maternal warmth	.65**	-.13	-.08	-.04	-.38**	33**	.34**	—		
9 Maternal education	.41**	-.12	-.04	-.0	-.33**	.09	-.07	.30*	.12	
10 Maternal social support	.35**	.02	-.13	-.01	-.13	.18	.04	.13	-.01	—

**P < .05. ** P <.01*

Discussion

The obtained scores of maternal sensitivity showed significant variation, appeared independent of some of the variables that might be influenced by the video procedure, and showed meaningful relations with other variables. The study results showed that 58% of mothers showed predominantly insensitive behavior. This is in line with the literature on parenting styles in traditional countries such as Yemen tending to be more authoritarian (Dwairy, 2006). However, even though the majority of the mothers were insensitive, there were still individual differences in sensitivity where 34% mothers were predominantly sensitive to their children. A significant proportion of this variation within the sample (23%) could be explained by variations in educational level and social support. This confirms findings in previous studies (Mertesacker, Bade, Haverkock, Pauli-Pott, 2004; Mesman, Van IJzendoorn, & Bakermans-Kranenburg, 2012), and suggests that the sensitivity observations tapped into meaningful variations in parenting patterns in this sample. This is further corroborated by the non-significant correlations between sensitivity and camera-related behaviors, showing that camera shyness did not unduly affect sensitivity scores.

The high percentage of insensitive and intrusive mothers in this study might have to do with the artificial nature of the observation setting, and the very low educa

tional level of the mothers. First, many mothers do not spend much time together with their children during the day, because the children often play outside without much maternal supervision, while mothers do household chores and socialize with female relatives and neighbors. Children do come in for lunch, and during the evening and nighttime. Being in the home together during the day without a clear purpose might have been too artificial and therefore produce more awkward and less sensitive interactions. Second, many mothers seemed to have trouble understanding the instruction of 'doing what you normally do with your child' and kept asking for guidance from the camera person even though they were doing what they were supposed to do. This may be due to the issue just described above or to the insecurity of uneducated women who were being observed and filmed by educated women. In some cases, many mothers asked their children to do mainly chores in front of the camera or interacted very little with their children while just looking at the camera. In future studies in similar contexts, it might be advisable to change the observation time to the evening, and to just film from eating until sleeping time without any further instructions or when feeding them during lunch time. This way, more naturalistic interactions are likely to be captured, and by filming for a longer period than only 15 minutes, mothers may also become more used to the camera and lose some of their camera awareness. For the same reason, multiple home visits could be helpful. This might also reduce the tendency to want children to 'perform' in front of the camera to show the guest (i.e., the researcher) that they are good obedient children which in Arabic culture is a way to bolster one's reputation (Kotnik, 2005).

Alternatively, one could hypothesize that the low sensitivity levels are due to the fact that mothers just do not spend enough time with the children to be sensitive to their needs. However, the results of studies that have examined sensitivity levels in relation to time spent with children (often defined in terms of maternal working hours outside the home) have been highly inconsistent, reporting no effects, positive effects or negative effects , but never particularly large effects (e.g., Bornstein et al., 2007; Buehler et al., 2014; Chang, 2013). Another explanation for the low sensitivity levels may be drawn from the cultural context where a focus on adaptation to the harsh circumstances could have shaped parenting in a less sensitive direction (cf. Simpson & Belsky, 2016). However, there were significant individual differences in sensitivity that are difficult to explain from this perspective because all families lived in the same slum area. On a fam

ily level though, it could be argued that the reason that mothers high in social support and with higher educational levels are more likely to show adequate to high sensitivity, can reflect a less deprived context, even within a harsh wider living environment. More insight into the parenting goals of these mothers could be helpful in that respect.

To more fully understand the low average sensitivity levels as well as individual differences in sensitivity within extremely deprived circumstances, future studies should consider (1) longer filming without instructions; (2) including a measure of time spent with the child; (3) including a culturally appropriate measure of parenting goals that is also suitable for illiterate parents. Finally,it would be better to have independent coders for the different observational constructs. The fact that all observation variables were coded by the same person in this study means including a measure of that their interrelations should be interpreted with caution.

To conclude, this study showed that video observation is feasible in a veiled context, and yields meaningful information on individual differences in maternal sensitivity. Studying the impact of different video observation protocols on children's and mothers' behaviors in future research, as well as mothers' religious and cultural beliefs regarding parenting in relation to observed parenting would be useful to gain more insight into the contextual factors relevant to observing parenting in traditional Islamic communities in low socioeconomic contexts.

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4

Partner Conflict as a Mediator Between Parental Education and Maternal Sensitivity in Yemeni Slums

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Abstract

This study examined the unique effects of parental education and intelligence on maternal sensitivity and the mediating role of partner conflict in this association in 62 Yemeni families living in slum areas. Children's age ranged between 2-6 years old. Mother-child interactions were videotaped in a naturalistic situation using the Ainsworth sensitivity scale, where maternal sensitivity in these interactions was coded. Mothers were also interviewed about their partner conflict experiences and were asked to complete Raven's Progressive Matrices intelligence test. Results revealed that parental education rather than maternal intelligence predicted mothers' level of sensitivity. Findings also indicated a mediational role of partner conflict in the association between parental education and maternal sensitivity. Mothers with lower levels of education experienced more partner conflict and in turn were less sensitive to their children. Based on these findings, future intervention programs should be designed to target improving level of education for parents and investigate if this indeed leads to less partner conflict and increased sensitivity.

Keywords: Maternal sensitivity, maternal education, maternal intelligence, partner conflict, slums, Yemen, observation

Introduction

Raising children is a challenging task that parents around the world experience. This task becomes even more challenging for those who experience low socioeconomic circumstances. Up until now research on parenting has been conducted mainly in samples from middle-income European or American families (Deater-Deckard, Dodge, & Bates, 1996; McLoyd, 2000). However, little is known about parenting, and about parental sensitivity and its correlates in particular, in non-Western cultures. In developed Western countries, lower levels of parental education and intelligence are associated with less sensitive parent-child interactions (Tamis-LeMonda et al. 2004; Diehl, 1997; Menaghan & Parcel, 1991; Bacharach & Baumeister, 1998). However, education and intelligence are closely intertwined in these countries as a result of widespread accessibility of education, and therefore unique effects of each of these variables cannot be disentangled.

In less developed countries where education is not accessible to all as a source for developing intellectual skills, not all intelligent people get the opportunity to be educated. This is certainly the case in the country of Yemen, which is one of the poorest countries in the world (Focus Economics, 2018). In a context like Yemen, it is possible to scientifically test the unique effects of education and intelligence on parental sensitivity. In addition, a mechanism that has been found to underlie the relation between education/ intelligence and sensitive parenting in Western countries is parental conflict (Belsky, 1984; Conger et al., 1990; Levendosky & Graham-Bermann, 2000, 2001). The aim of this study is to test parental education and intelligence as potential unique predictors of parental sensitivity in mothers in slum areas in Yemen, and to test partner conflict as a potential mechanism within this relation.

Maternal Sensitivity

There is strong empirical evidence that parental sensitivity is related to child development (Mesman et al., 2012). Sensitivity, according to Mary Ainsworth's definition, is the ability of a parent to be aware of her child's signals, interpret those signals, and respond to those signals promptly and appropriately (Ainsworth, Bell & Stayton, 1974). Children who experience sensitive and responsive care tend to develop secure attachments whereas children who experience insensitive and unresponsive care are at risk of developing insecure attachments (Ainsworth et al., 1978; Bakermans-Kranen

burg,\Van IJzendoorn & Juffer, 2003). Early attachment is found to be associated with children's social competence with peers (Groh, Fearon, Bakermans-Kranenburg, Van IJzendoorn, Steele, & Roisman, 2014). In comparison to their insecurely attached agemates, children with secure attachment together with ongoing sensitive care have been found to perform best in terms of expressive and receptive language, cooperativeness, school readiness, and behavior problems (Belsky, & Fearon, 2002). Similarly Mills-Koonce et al. (2007) emphasize that parental sensitivity, which predicts early parent-child secure attachment, leads to child developmental advantages. Because maternal sensitivity is a key variable in the positive development of children, examining its predictors is crucial to determining families at risk for less sensitive parenting patterns and thus less optimal child development.

Predictors of Sensitivity

There are many factors that have been studied as predictors of maternal sensitivity (Shin, Park & Kim, 2006). Maternal demographic characteristics like socioeconomic status (SES) and maternal intelligence are some of the most studied factors in relation to sensitivity (Conger, Conger, & Martin, 2010). SES covers three indicators: income, education and occupational status (Bradley & Corwyn, 2002, Ensminger & Fothergill, 2003; Conger et al.2010; Bangdiwala et al., 2004; Krieger, Williams, & Moss, 1997; White, 1982). Education is considered the strongest indicator of SES because it partially influences the other components of SES, namely occupation and income (Krieger et al., 1997). Education refers to the process of the attainment of knowledge, skills and values which in the formal education systems of schools and other educational institutions take the form of some qualification of children and adults (Biesta, 2009). Previous studies on parent-child interaction have shown that parental education is related to parenting quality. Tamis-LeMonda et al. (2004) found that mothers' educational acquisition is associated with sensitive parenting of young children. Mothers with more years of education were more sensitive and less intrusive toward their children (Tamis-LeMonda et al. 2004), showed more positive responses to infant behavior and distress (Diehl, 1997), and had a less controlling style in parent-child interaction (Ispa et al. 2004). There is also evidenceof intelligence being related to the quality of parental care. Parents with higher intelligence showed higher quality care of their children and provided better and more stimulating home environments for their children (Bacharach

& Baumeister, 1998; Baharu din & Luster, 1998; Menaghan & Parcel, 1991; Yeates, MacPhee, Campbell & Ramey, 1983).

However, within Western countries, intelligence is a strong proxy for education (and vice versa), with correlations as high as .78 (Rindermann, 2008) and .81 (Deary, Strand, Smith, & Fernandes, 2007). It could be argued that the relation between education and intelligence in Western countries is reciprocal: education increases intelligence and intelligent people can reach a higher education level (Rindermann, 2008). Given the strong intertwining of these two constructs, testing both as independent predictors of parenting is generally difficult in Western samples (Hadd, & Rodgers, 2017). However, in developing countries, we expect education and intelligence not to be as strongly related. For example, in the Yemeni context, even though education is compulsory, in reality it is only provided to those who have access to it through their social, economic and family educational background. In that setting, low educated people in Yemen can be people with all levels of intelligence. Within that setting, not all low-educated but intelligent people can reach the educational level for which they have the potential (World Bank Group, 2002). Based on that, the Yemeni context provides us with the scientific advantage to be able to study the unique effects of parental education and intelligence on parental sensitivity and the mechanisms behind those effects.

The Role of Partner Conflict

So far we know that there are links between parental education, parental intelligence and parental sensitivity but mechanisms behind them are largely unknown. Partner conflict is suggested to be one of the potential mechanisms. Previous research shows that lower levels of education and/or intelligence are associated with more partner conflict. Educational attainment was found to be associated with less marital stability (Heaton, 2002; Martin, 2006; Orbuch, Veroff, Hassan, & Horrocks, 2002), including a higher risk for physical and/or sexual intimate partner violence (Bangdiwala et al., 2004; El-Bassel, 2013; Jeyaseelan et al., 2004). An explanation of the negative association between education and partner con flict could be that education enables women to protect themselves from intimidation and physical violence (Jeyaseelan, et al., 2004) and have greater decision-making power (Cleland & Van Ginneken, 1988). Research also shows that low intelligence may be related to general aggression between partners (Vitacco, Neumann, & Wodushek, 2008) and to poor communication skills that are as

sociated with intimate partner conflicts (Walling, Meehan, Marshall, Holtzworth, Munroe & Taft, 2012).

Further, several studies have detected a robust association between partner conflict and maternal sensitivity which shows evidence that mothers with a history of partner conflict show lower levels of sensitivity towards their children. For instance, several studies showed that mothers who experience low levels of marital support are likely to provide less supportive environments for their children (Belsky, 1984; Conger et al., 1990), and that women with intimate partner conflict histories show lower levels of parenting warmth (Levendosky & Graham-Bermann, 2000, 2001).

Based on the associations found in previous research, partner conflict could play a mediating role in the relation between parental education/parental intelligence and parental sensitivity. In other words, educated/intelligent mothers may experience less partner conflict, which in turn will enable them to show more sensitivity to their children than mothers who are less educated/intelligent.

Mechanisms in the Yemeni Context

Yemen, being one of the poorest countries in the Arab region (United Nations Development Programme, 2010), provides a suitable context to test the hypothesized association between parental education or intelligence and parental sensitivity.Education in Yemen is still a big challenge particularly for women. Although Yemen's government provides for compulsory and free education for children who are between six and fifteen years old, compulsory attendance is not enforced and not everyone has access to education. On the top of the list of people who have limited access to education are Yemeni girls and women (United Nations Girls' Education Initiative, 2013). The country ranked 168 out of 188 countries and territories in the 2016 Human Development Report and 159 out of 159 countries in the gender inequality index (United Nations Development Programme, 2016). In comparison to 33.2 % of their male counterparts who reached at least secondary level of education (which is low in itself), only 15.6 % of Yemeni adult women have reached this level (United Nations Development Programme, 2016). Illiteracy in women is still a major problem in Yemen affecting more than 75% of women living in rural areas, and more than 40% of women living in urban areas (United Nations International Children's Emergency Fund, 2012).

Limited opportunities for women to pursue their education either at the prmary

level or even for higher education are the result of many factors. A major factor is the high cost of schooling which has prevented poor parents from making sure that their children in general, and girls in particular, are educated (United Nations International Children's Emergency Fund, 2012). Another factor is the high number of children per family. For decades, Yemeni women were the most fertile in the world, having an average of more than seven children. It is only since 2005 that this number dropped, to 4.7 in 2010 (Fanack, 2016) and to 4 in 2016 (World Data Atlas, 2016), still much higher than in the Western world. The high cost of raising a large number of children drives families in a poor country like Yemen to put their children into the labor market or household work rather than sending them to schools. This is particularly the case for girls, as nearly half of primary school-aged girls do not go to school (United Nations International Children's Emergency Fund, 2012). In large families, girls are needed at home to help around in the household work or in rearing younger children. A third factor preventing girls from being educated is child marriage. Yemen is one of the few countries in the Middle East region without a legal minimum age of marriage (United Nations International Children's Emergency Fund, 2017), and 50% of the girls in Yemen are married off before the age of 18 years, a figure that has risen to 65% as a result of the current conflict in Yemen (Office of the High Commissioner for Human Rights, 2017).

Marital relationships in Yemen are a typical illustration of women's subordinate position (Lackner, 1995). Yemeni women are obliged to obey their husbands by Divine law (Gautier, 2005), live in the matrimonial home, and do the housework (Lackner, 1995). This typically lays the ground for many conflicts including the abuse of women by their male partners and/or family members (Anwar, 2015). The most updated data on domestic violence in Yemen shows that marginalized, low-income and rural women arethe most vulnerable for partner conflict (Women National Committee, 2010). However, gaining a clearer insight of partner conflict in Arabic countries is hindered by traditions where in times of marital conflicts, most Arab families, including Yemeni families, do not go to a stranger; e.g., psychologist, to solve their problems (Baker, 2003). Instead, they rely heavily on the support of the extended families to help them solve those conflicts (Baker, 2003).

The Current Study

The current study tested the following hypotheses in families who live in slum

areas in Taiz, Yemen: 1) education and intelligence each have a unique effect on pa rental sensitivity 2) partner conflict mediates the associations between education/intelligence and sensitivity. Specifically, we expected mothers who had higher education/ intelligence to experience less partner conflict than mothers who have lower education. In turn, we expected the mothers who had less partner conflict to show more sensitivity to their children.

Method

Participants

The sample for this study consisted of 62 low-income mothers and their 2-6-year-old children. The majority of these families (71%) lived in an urban slum and 29% lived in a rural slum area in Taiz governorate, in the southwest of the Republic of Yemen. Mothers were included in the study if they were living in the selected urban or rural slum areas located in Taiz governorate, had at least one child between 2-6 years ofage of which they were the biological mother, had been living in the same area for at least 6 months, and were Muslim families. Mothers or children with significant physical and/or mental health problems were excluded. Families were recruited through a non-governmental organization (NGO) that also collected the data. The head of the NGO, along with her assistant and three community facilitators, women from the local community who played the role of a catalyst between the NGO staff and the mothers to be recruited, visited families to brief them on the project and to ask their permission to participate in the research. Families who had agreed to participate were then visited again for data collection

General descriptives about the sample are presented in Table 1. Maternal mean age was difficult to obtain as most of the mothers did not know their age. Out of 62 mothers, only 3 knew their birth month and year. All other mothers said they did not know in which month or year they were born or provided unsure or unreliable answers, such as "maybe 30 or 40" or "11 years". Parental education varied between mothers who had no education at all (53% illiterate), to 5% mothers who had a college degree. Most of the mothers in the sample were married (89%), 5% were divorced, and 7% were widows. Mothers did know their children's age; their mean age was 38.69 months (*SD* = 10.09). Fifty-two percent of the participating children were girls. The number of siblings in the families varied from the target child to be the only child per family (16%), children with

one sibling (21%), children with two siblings (21%), children with three siblings (16%), to children with four or more siblings (26% up to 10 siblings), to children who had 5 or more siblings (18%). None of the mothers had a job. Out of the 55 two-parent families, 36 fathers (58%) had jobs. In addition, 42% of the sample had no monthly income, 18% had a monthly income below 25,000 Yemeni Rails (1,000 YR equals $3.54 USD at the time of the data collection), 21% above 25,000 YR and 19% did not know what their monthly income was or did not want to share this information.

Procedure

Data was collected via a local non-governmental organization (NGO) working to achieve social justice with the aim of improving living conditions for the poor. The NGO was selected based on its already existing work in the selected slum settlements. This implied that once the NGO decided to terminate its own field work for security reasons because of the war taking place in Yemen, the data collection for this study would be terminated as well. The first author delivered training to the head of the NGO to do the recruitment and to conduct data collection for this study. After the training, the local NGO conducted four pilot family-field-visits to pilot the instruments and prepare for the recruitment of participants. Based on lengthy discussions and feedback from the NGO after the pilot field visits, the home visit procedure, the questionnaire, and the observational task were adapted to fit the cultural context of the participants.

The home visit consisted of three parts, a questionnaire, IQ test, and a naturalistic video-observation of a mother-child interaction. Because mothers in Yemen spend most of their daily life at home, it was agreed with them that data collection would becarried out at home. One home visit took between 2–3 hours. Due to the illiteracy rate among women in Yemen which is 65%, compared to 27% among men (UNFPA, 2017), the questionnaire was carried out in an interview format which was audio-taped. The questionnaire included questions on the families' background, demographic information, socioeconomic conditions, social support, and domestic violence. Questions were translated into Taizi, the local dialect of the Arabic language, and then back-translated to English by a local translator to avoid any translation errors across cultures. Domestic violence questionnaire was only administered to those who were married. Divorced and widow mothers were excluded.

For the video-based naturalistic observations, mothers and children were vid

eotaped for a 15-minute episode of a daily activity they usually do together. Mother-swere instructed to interact with their children as they would normally do. The naturalistic observation videos were later coded by a team of one trained rater from Yemen who spoke the language (the first author), and one expert western rater who used translation (the last author).

All participating mothers (and fathers in the case of two-parent families) signed informed consent forms for their own and for their child's participation in the study and were asked specifically if they agreed with audio and video recording of parts of the home visit. For those who could not read or write, the consent form was read out verbatim and their consent was videotaped. Families were compensated for the home visit by means of a small gift of the value of US$6.50 . However, in the very poor families, the NGO found it more appropriate to buy food items worth of the US$6.50 a gift. The study protocol was approved by the Ethics committee of the Institute of Education and Child Studies, Leiden University.

Measures

Parental Sensitivity. Parental sensitivity refers to mothers' ability to perceive child signals, to interpret these signals correctly, and to respond to them promptly and appropriately (Ainsworth, Bell, & Stayton, 1974). Maternal sensitivity was assessed using the Ainsworth Sensitivity scale (Ainsworth et al., 1974). Mothers were instructed to interact with their infants for 15 minutes as they would normally do. Interaction activ ities ranged from doing an activity like feeding their children, playing together, cooking, combing their children's hair, doing homework, or folding clothes to doing nothing and watching their children play with other kids. Intercoder reliability was determined by randomly selecting 15 videos which were coded by the first and last author. Intercoder reliability (intraclass correlations, absolute agreement, single rater) was high (.84).

Parental Education. We tested only parental education which was defined by the level of education mothers have achieved. Maternal level of education was measured in the interview on a 5-point scale ('0 = no education', '1= primary school', '2 = secondary school', '3 = high school', and '4 = college degree').

Maternal Intelligence Test. Raven's Progressive Matrices is a non-verbal pattern-com pletion test which is used throughout the world as an indicator of general intelligence (Raven, 2000). Raven's measure was selected in this study because of its non-verbal format, which is adequate for this study's sample where more than half of the mothers (53%) had no education at all, and because of its frequent international use (Vijver, 1997).

Raven's test consists of five sets of twelve matrices (total 60 patterns) presented in black and white, and increasing in level of difficulty. Because of our participants' low educational background, participants were presented with the first three sets only (36 patterns). Each pattern/matrix had a missing element that the participants had to identify. Participants were given as much time as they needed to complete this task. The total number of correct choices was used as the score indicating nonverbal IQ. Split-half estimate of reliability was .87. A total score was computed as the average of all items with higher scores indicating more intelligence.

Partner Conflict. The Conflict Tactics Scale (Straus, Hamby, Boney-McCoy & Sugarman, 1996). was used to measure the degree to which partners in romantic relationships psychologically or physically attack one another, and their use of reasoning or negotiation to deal with conflicts. The CTS has been applied to participants from different cultural backgrounds.This study used the short version of the scale which consisted of seven questions asking mothers to recall how certain conflicts with their partners were handled, e.g. "My husband or I threatened to hit or throw something at each other". Based on the pilot study, it was apparent that the 5-point scale as an answering format was too complex for the participants. Hence, the scale was adapted into a 3-point scale. Cronbach's alpha was .75. A total score was computed as the average of all items, with higher scores indicating more partner conflict.

Results

Bivariate Correlations

Preliminary analyses confirmed that assumptions of normality and linearity were not violated. Descriptive Statistics are presented in table 1. Bivariate correlations between all variables in the current study are shown in Table 2. Parental education was significantly positively correlated with maternal sensitivity and maternal intelligence

and was negatively correlated with partner conflict. Higher educated mothers were more sensitive, more intelligent and experienced less partner conflict. On the other hand, partner conflict correlated negatively with all other variables: maternal sensitivity, education and maternal intelligence. Mothers who experienced more partner conflict showed lower sensitivity, were lower educated and had lower intelligence scores. While maternal intelligence was not significantly associated with maternal sensitivity, it was positively asso ciated with parental education and negatively associated with partner conflict. Mothers who scored high on the IQ measure were more educated and had less partner conflict.

Table 1. Descriptive Statistics (N = 62)

	n	%
Parental education		
No education	33	53
Primary education	10	16
Secondary or high school	16	26
College degree	3	5
Marital status		
Married	55	89
Divorced	3	5
Widowed	4	6
Child age		
24 - 37 months	32	52
37 - 60 months	30	48
Gender (% girls)	32	52
Number of siblings		
No siblings	10	16
One sibling	13	21
Two	13	21
Three	10	16
Four or more	16	26
Working mothers	0	0
Working fathers*	36	58
Family income**		
No monthly income (as reported by mothers)		
Income below 25,000 YR	11	18
Income above 25,000 YR	13	21
Unknown or not shared	12	19

**N = 36 out of 55 fathers because of divorced mothers and deceased husbands*

***1,000 Yemeni Rails (YR) equals $3.54 USD at the time of the data collection*

Table 2. Pearson correlations between all variables

	1	2	3	4
1. Parental Education	-			
2. Maternal Intelligence	.462**	-		
3. Partner Conflict	-.340**	-.328**	-	
4. Maternal Sensitivity	.411**	.213	-.316*	-

**p < 0.05, ** p < 0.01*

Parental Education and Intelligence Predicting Maternal Sensitivity

Next, a standard linear regression analysis was performed to test parental education and maternal intelligence as predictors of maternal sensitivity simultaneously. Results of the regression analysis are presented in Table 3. The regression model was found to be significant, $F(2.59) = 6.03$, $p = .004$, with an R^2 of .170. Looking into individual predictors, only parental education was a significant predictor of maternal sensitivity, $\beta = .30$, $p < .004$. Maternal intelligence was not a significant predictor of maternal sensitivity.

Table 3. Regression model testing contribution of parental education and maternal intelligence in the prediction of maternal sensitivity

	β	*t*	*p*
Constant		3.50	.001
Parental education	.40	2.97	.004
Maternal intelligence	.03	.218	.828

*$R^2 = .170$ *p < 0.05*

Testing Mediation

To examine our main research question and based on the correlations between the variables, a mediation analysis was conducted to assess whether partner conflict fully or partially mediated the relation between parental education and maternal sensitivity. In this analysis, the predictor variable was parental education, the mediator was partner conflict and the outcome variable was maternal sensitivity (see Figure 1). Parental education correlated positively with maternal sensitivity, $r(60) = .41$, $p < .001$. Parental education also correlated negatively with partner conflict, $r(60) = .34$, $p < .007$, and

partner conflict correlated negatively with maternal sensitivity, $r(60) = .32$, $p < .012$. The indirect effect from parental education to maternal sensitivity through partner conflict was tested using a percentile bootstrap estimation approach with 10,000 samples (Shrout & Bolger, 2002), implemented with the PROCESS macro Version 3 (Hayes, 2017). The results indicate that the indirect effect was significant, $\beta = .13$, $SE = .09$, 95% $CI = .0023$ - $.3506$, providing support for the partial mediational role of partner conflict in the relation between parental education and maternal sensitivity. Educated mothers had less partner conflict which in turn related to higher levels of sensitivity to their children.

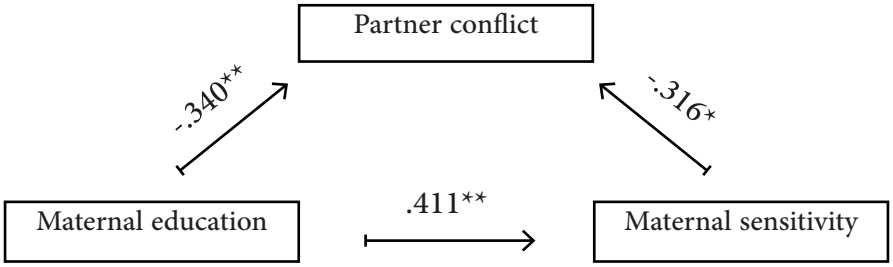

Figure 1. Partner conflict partially mediates the relation between parental education and maternal sensitivity

Discussion

This study examined parental education and intelligence in relation to observed parental sensitivity among mothers of 2-6-year-old Yemeni children living in slum areas. It also examined the mediational role of partner conflict in those associations. Results revealed that mothers' level of education rather than their level of intelligence was a predictor of their level of sensitivity towards their children. Findings also suggested a mediational role of partner conflict in the relation between parental education and parental sensitivity. Specifically, low educated mothers reported more partner conflict which was in turn associated with less maternal sensitive behaviors towards their children's.

Previous research reporting associations between maternal sensitivity on the one hand and maternal education and intelligence on the other hand is based mainly on Western samples, but in most cases education and intelligence are highly correlated so it is unclear whether the interpretation of the association with maternal sensitivity should

be found in the educational area or intelligence area. Our finding that education but not intelligence is related to maternal sensitivity supports our hypothesis that these characteristics reflect more distinct variables in developing countries. We found that in the Yemeni slum context, education is the driving factor in the association with maternal sensitivity and not intelligence, which is in line with previous literature on Western samples (Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004; Pederson, Moran, Sitko, Campbell, Ghesquire & Acton, 1990). Mothers with no education or a low level of education are more likely to use more authoritarian and harsher parenting styles than mothers with higher levels of education, which is manifested by more physical punishment and the absence of reasoning with children (Hoff, Laursen, Tardif & Bornstein, 2002).). Less educated mothers spend less time with their children in comparison to educated mothers for several reasons, such as having more children (Guryan, Hurst & Kearney, 2008), lacking the educational background to provide educational care for their children (Robinson and Godbey, 1999), or lacking the vision that time spent with their children is as an investment in their children's future (Guryan et al.,2008). Because of their increased knowledge provided by their education, educated mothers are less likely to perceive their children as difficult as they are better able to offer support according to the child's needs at a particular task (Neitzel & Dopkins Stright, 2004). Another explanation for the association between education and sensitivity may be that uneducated mothers have less access to materials on parenting provided at school or booklets and brochures received from motherhood and childhood centers (Yemeni association for Reproductive Health, 2017). Even in the case of obtaining that information, it is likely that uneducated mothers cannot process the information as much as mothers who have been schooled and are more experienced in systematic information processing (Huq & Tasnim, 2008; Mechanic, 1992). Moreover, while uneducated mothers might attain their parenting skills and information from their parents, relatives, neighbors or friends, educated mothers might attain that information by mingling in a broader social context where they meet other educated women with whom they discuss issues related to parenting.

Furthermore, we showed that general high intellectual capacity apparently does not make the difference in sensitivity. In the slum context both low and high intelligent mothers might have trouble accessing important parenting resources and are less aware of their roles in child development. In telligent mothers are not necessarily educated, and due to a lack of access to education could even be illiterate in spite of their

general intellectual capacity. It appears to require education to use intellectual capacity productively in daily life so that one can have ability to engage in functional conversation and to solve intellectual and day-to-day problems (Gore, Griffiths & Ladwig, 2002). Moreover, even though some literature showed that maternal intelligence was associated with better home environments, apparently, it can be due to the notion that maternal intelligence may be acting as an indirect measure of maternal education which could be the true casual influence in the relationship (Hadd & Rodgers, 2017).

Our finding that partner conflict mediates the association between maternal education and maternal sensitivity was in line with previous literature. Earlier studies have shown that lower levels of educational attainment are associated with less marital stability (Heaton, 2002; Martin, 2006; Orbuch, et al., 2002), including a higher risk for physical and/or sexual intimate partner violence (Bangdiwala et al., 2004; Ismayilova et al., 2013; Jeyaseelan et al., 2004). This association could be explained by the notion that education enables women to protect themselves from intimidation and physical violence through their capacity to think through problems and arriving at solutions in a more amicable manner (Jeyaseelan, et al., 2004) and have greater decision-making power (Cleland & Van Ginneken, 1988).

Studies also showed that mothers who experience low levels of marital support are likely to provide less supportive environments for their children (Belsky, 1984; Conger et al., 1990), and that mothers who experience intimate partner conflict show lower levels of parenting warmth (Levendosky et al., 2000, 2001). The higher level of stress that is associated with partner conflict may constrain mother's ability to be sensitive to her child (Levendosky, Leahy, Bogat, Davidson, & von Eye, 2006), and hostility and anger experienced in marital relationship can spill over into more hostile and angrier parenting (Levendosky, et al., 2006).

Our findings put emphasis on the important role that maternal education rather than intelligence plays in maternal sensitivity. This implies that education in poor contexts such as in the Yemeni slums is essential not only in women's lives by helping them to manage their relationship with their partner, but also in interaction with their children which ultimately will influence the next generation's abilities to negotiate relationships and parenting as well (Perren, Von Wyl, Bürgin, Simoni, & Von Klitzing, 2005; Belsky, Jaffee, Sligo, Woodward, & Silva, 2005). Realizing the crucial role of education in the lives of girls and women, and based on the UN development goal of ensuring inclu

sive and equitable quality education, the Yemeni ministry of education along with its national and international partners have established a girls education sector within the ministry (Ministry of Education, 2016). The main aims of the sector is to increase girls' enrollment in schools by increasing the number of female teachers (World Bank, 2013), providing conditional stipends to disadvantaged families (Global Partnership for Education, 2017), and improving the education level at the primary level (USAID Woronowycz, 2012).

A number of limitations in the interpretation of these study findings need to be considered. First, it is important to highlight that this study is a cross-sectional study and therefore it is not possible to draw conclusions about causality. Longitudinal studies and experimental studies are needed to disentangle both direction and causality of the associations described in the current study, as well as explore potential third variables, such as childhood experiences, that might be at the core of all of the variables studied here. Second, the sample used for this study was relatively small. The sample size was restricted to 62 families because of the security status of the study location (Alsarhi, Rahma, Alink, Prevoo & Mesman, 2018). However, for such a unique sample, this number can be considered a valuable start in the parenting research in slum areas where video-taping fully covered women was a challenge. Another limitation is that partner conflict was only assessed through reports by mothers and not reported by their husbands. This leaves the partner conflict picture incomplete. A multi-informant approach would have reduced the risk of social desirability bias. However, the local NGO staff who conducted data collection for this study had a long-term work relationship with the participants, which made mothers feel quite comfortable to share private information and thus may lessen theextent of socially desirable answers. A final limitation is the lack of information on the educational level of the mothers' partners. For example, if data had been gathered on the level of education of the partners, it would have been possible to examine associations between fathers' education and partner conflict.

The current study however, has many strong points to be highlighted. First, this study is unique as it used a standardized observational measure which was done for the first time in a culture where women are fully covered and filming of women is a taboo (Alsarhi, Rahma, Alink, Prevoo & Mesman, 2018). Second, this study used a mul tiple methods in addition to standardized observations, including a questionnaire where women reported their marital conflict and a standardized test where mothers' level of

intelligence was measured. Third, this study showed the unique association between parental education on parental sensitivity in a developing country context where education is not (easily) accessible to everyone and education and intelligence are more distinct constructs compared to Western countries with compulsory and accessible education for everyone.

Taken together, our findings suggest that partner conflict plays an important mediational role in the association between parental education and parental sensitivity. The findings from other research (Jewkes, 2002), and our own findings suggest that there is a need for improving the level of literacy of adult women and for girls' education as a preventive mechanism for illiteracy among women which in turn is a mean to prevent family problems as well. Future research should be carried out to then test the effectiveness of such measures to diminish intimate partner conflict and improve maternal sensitivity. In addition, intervention programs can be introduced to help both the mothers and their partners to develop more effective communication in general, and during partner conflict in particular, support parents in supporting their children during partner conflict episodes, and help parents to acquire more sensitive parenting skills. Future research can also focus on exploring the effects of education and intelligence on maternal sensitivity in developing countries and how these might differ from findings in the Western context.

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5

Maternal Harsh Physical Parenting and Behavioral Problems in Children in Religious Families in Yemen

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Abstract

The present study examined maternal religiosity as an underlying cultural factor in the effect of harsh physical parenting on child behavioral problems. Data was collected via a discipline observational task, religiosity-based vignettes, and a questionnaire in a group of 62 mothers and their children in slum areas in Yemen. Moderation and mediation models were tested, where the role of maternal religiosity as a predictor and a moderator in the association between harsh physical parenting and child behavioral problems was explored. Findings showed no direct association between harsh physical parenting, maternal religiosity, and child behavioral problems. However, maternal religiosity was found to significantly moderate the relationship between harsh physical parenting and child behavioral problems such that the positive association between harsh physical parenting and child behavior problems was stronger when parents were more religious. Implications of the moderating role of maternal religiosity on the association between harsh physical parenting and child behavioral problems are discussed.

Keywords: harsh physical parenting; religiosity; Yemen; child behavioral problems; discipline; slums; video observation .

Introduction

Harsh physical parenting, such as hitting and spanking, is associated with range of adverse negative child outcomes, such as behavioral problems, lowered self-esteem, and adverse mental health (Larzelere, 2000; Gershoff, 2002; Chang, Schwartz, Dodge, McBride-Chang, 2003). However, to date most studies have mainly examined the behavioral and emotional outcomes of harsh physical discipline in white, two-parent, middle-class families (Amato, 2002), with more recent attention being given to African American families (Deater-Deckard, Dodge, Bates, Pettit, 1996; Wiley, Warren, Montanelli,2002; Querido, Warner, Eyberg, 2002; Decety et al., 2015). Because the cultural normativity of harsh parenting can moderate the association between this type of parenting and child outcomes (Lansford, 2005), expanding this area of study to families from different backgrounds (Demo, Aquilino, Fine, 2005; Bornstein, 2017) with attention to relevant cultural factors such as religiosity is needed. Maternal religiosity in relation to harsh parenting and child outcomes has revealed mixed results in the literature.

While a prominent part of the literature showed that maternal religiosity is related to harsher parenting (Ellison, Bartkowski, Segal, 1996; Alwin, & Felson, 2010) and more negative child outcomes such as antisocial behavior, negative psychosocial outcomes, child problem behaviors, and academic failure (Straus, 1997; Wilcox, 1998; Bornstein, 2017; Gershoff, 2010), other studies have shown positive effects of maternal religiosity on parenting and child outcomes, for example, lower rates of less child abuse (Carothers, Borkowski, Lefever, Whitman, 2005; Mahoney, Pargament, Tarakeshwar, Swank, 2008). However, the presence of both positive and negative effects of maternal religiosity on parenting underlines the importance of religiosity in trying to understand harsh parenting and child development, especially in cultural contexts where religion is a salient part of life. However, to date, most studies have examined maternal religiosity among English-speaking populations in Western societies (e.g., the United States), focusing on Judeo-Christian religions (Mahoney, Pargament, Tarakeshwar, Swank, 2008; Mahoney, 2010). The current study explores the role of maternal religiosity as a predictor and a moderator in the association between harsh physical parenting and child behavioral problems in low-income Muslim families in Yemen.

Harsh Physical Parenting and Child Behavioral Problems

Parental discipline tactics have received great interest from researchers, with

a particular focus on the implications of harsh physical discipline on child development (Bender, 2007). Harsh physical discipline is regarded as the parents' attempt to control or punish a child using physical forms of punishment, e.g., pinching, hitting, spanking etc. (Chang, Schwartz, Dodge, McBride-Chang, 2003). Harsh physical discipline has been commonly associated with a negative trajectory in children's development (Gershoff, 2010; Straus, Douglas, Medeiros, 2013), including child internalizing and externalizing problems (Polcari, McGreenery, 2006; Teicher et al., 2006; McKee, 2007; Taylor, Manganello, Lee, Rice, 2010; Teicher, Samson, Alink, Cicchetti, Kim, Rogosch, 2012; Jansen, 2012).

Even though parents generally use physical punishment with the intention to end inappropriate or undesirable behavior and to encourage acceptable behavior from their children, physical punishment is instead known to have negative child outcomes (Straus, 1997), for example increasing instead of decreasing the undesirable behaviors (Gershoff, Lansford, Sexton, Davis-Kean, Sameroff, 2012). Earlier studies found that the more physical punishment is used by parents, the more aggressive their children become in the long-term (Deater-Deckard et al., 1996; Gershoff, 2010). Another study showed that maternal harsh parenting distinctively contributes to negative behavioral adjustment in children (Mulvaney & Mebert, 2007).

However, research also showed that the effects of maternal physical discipline on child outcomes may not be universal, as contextual factors such as culture, ethnicity, and religion can play a role in that relationship (Pinderhughes, Dodge, Bates, Pettit, Zelli, 2000). For example, cultural normativity was found to play a moderating role in the relation between physical discipline and child adjustment (Lansford, 2005). In other words, in cultures where physical discipline was more normative, it was found that more frequent use of physical discipline was less strongly associated with adverse child outcomes (Lansford, 2005). In another study, ethnic group differences played a moderating role as well in the relation between physical discipline and child adjustment (Deater-Deckard et al., 1996).In this study, it was found that physical discipline was less strongly associated with child behavior problems for African-American children in comparison to European-American children. In addition, religion, which is possibly one prevalent aspect of culture (Decety, 2015), was also found to have a role in harsh parenting and child outcomes, but has received limited attention from social scientists (Jenkins, 1992). It is the aim of this study to investigate the role of religion in harsh

parenting and child behavioral outcomes.

Religion and Maternal Religiosity

Although religion can have a significant impact on parents' attitudes toward physical discipline (Hoffmann, Ellison, Bartkowski, 2017) and thus on parenting behaviors, research on how religion may shape parent–child relationships has received only limited consideration by social scientists (Jenkins, 1992; Mahoney et al., 2008). That said, it is even more unfortunate that most of the available research on religion in relation to parenting has mainly involved English-speaking populations in Western societies (e.g., the United States), focusing on Judeo-Christian religions (Mahoney et al., 2008; Mahoney, 2010). Results from the available literature on parenting and child outcomes in religious versus non-religious families have shown mixed results, where some studies presented positive effects of religion while others presented negative effects. For example, research reveals that religious parents use corporal punishment (Gershoff, Miller, Holden, 1999) and engage in harsher discipline more often than non-religious parents (Loewenthal, 2006). On the other hand, research also shows that children of religious parents show more empathy and sensitivity in everyday life (Decety, 2015) and more positive psychosocial adjustment (Good & Willoughby, 2006) than children of non-religious parents. However, these findings on religious and non-religious families reveal only part of the picture on religion and parenting. In the available literature, we have found fewer studies that shed the light on differences in parenting in samples of religious families who differ in their level of religiosity (Mahoney et al., 2008; Gershoff et al., 2012; Gershoff et al., 1999; Wiley, & Warren, 2002; Murray-Swank, Mahoney, Pargament, 2006; Carothers et al., 2005).

While religion refers to an organized socio-cultural-historical system of beliefs that connects people to an order of existence, religiosity is a measure of a person's devotion and involvement with a religion (Bornstein et al., 2017). Part of the literature has highlighted that a higher level of religiosity is related to harsh parenting and negative child outcomes, while other studies have revealed the opposite. For example, one study showed that physical punishment was used by parents with conservative scriptural beliefs more recurrently than by parents with less conservative theological views (Ellison, 1996). In their meta-analysis of studies from 1980 to 1999, Mahoney et al. (Mahoney et al., 2008) showed consistent evidence that conservative Protestant parents do spank

young children more often than non-conservative Protestant parents. In another community sample, it was shown that biblically liberal mothers spanked their children less than biblically conservative mothers (Loewenthal, 2006). Other studies explicitly stated that in general, conservative Protestants exhibit more cohesive support for harsh parenting than parents who are less conservative (Wiley et al., 2002; Hoffmann et al., 2017). On the other end of the spectrum, research also presented some positive effects of religiosity on parenting. For example, across a 17-year period, one study showed that in religious families in which parents rarely attended church services, young children were more than twice as likely to be abused physically as were children whose parents attended church regularly (Murray-Swank et al., 2006; Brown, Cohen, Johnson, Salzinger, 1998). A meta-analysis revealed that maternal religiosity was related to positive parenting and child outcomes, even though parents used harsh parenting techniques like spanking (Mahoney et al., 2008). The positive child outcomes might be explained by the consistency, confidence, and provision of clear limits by parents with strong religious beliefs (Mahoney et al., 2008). Also, mothers with high religious involvement displayed less child abuse potential (Carothers et a., 2005).

Moreover, previous literature revealed mediational models where religiosity played an important role in physical punishment and child behavioral problems. Mediational models showed that conservative Protestant parents who exhibited more religiosity showed excessive harsh parenting which, in turn, increased the probability of children's mental health problems; e.g., rebelliousness, fearfulness and guilt (Ellison et al., 1996), and child problem behaviors (Bornstein, 2017). Another unique mediational study which included four different religions (Catholicism, Protestantism, Buddhism, and Islam) showed that maternal religiousness is associated with harsher parenting which, in turn, increased child problem behaviors (Bornstein, 2017).

Interestingly, it was also found that religiosity played a moderating role in the relationship between harsh parenting and child behavioral outcomes. One study showed that children whose mothers were more religious exhibited minimal adverse effects of physical punishment in comparison to their counterparts whose mothers were less religious (Ellison, Musick, Holden, 2011). This could be due to the normative support among religious communities for harsh discipline and the fact that some family members and peers have been exposed to harsh parenting. In comparison to their counterparts in other settings where harsh discipline may be condemned, it is less likely that children

of religious families perceive this practice as denounceable. In fact, they might consider it as appropriate, and an indicator of maternal involvement and concern (Ellison, Musick, Holden, 2011).

In summary, our literature review shows that maternal religiosity is related to both parenting and child outcomes, and may play a significant role in family life. However, it is still unclear whether those findings from previous research can be generalized to low-income families or families from non-Western cultural backgrounds (Hill, Burdette, Regnerus, Angel, 2008). Therefore, it is the intention of this study to add to the above literature on religiosity and low income families by shedding light on the role of religiosity in the association between harsh parenting and child problems in a low-income Muslim sample of families who live in slums in the north of Yemen.

Maternal Religiosity in Yemen

Islam is the main religion of Yemen, and the constitution of this country states that Islamic law is the source of all legislation (Constitution of Yemen, 2013). The percentage of Muslims in Yemen is 99% (Pew Research Center, 2011). The family unit is a crucial component of Islam, in which parents and children are given due significance. For example, the holy book, the Quran, highlights the position of children by describing them as an adornment of the worldly life (Quran 18: 46). The prophet Mohammed emphasized the parents' important responsibility towards their children when he said

"Every one of you is a shepherd and is responsible for his flock."(The Hadith, S.ah.īh. al-Bukhārī 6719, S.ah.īh. Muslim 1829. 2011)

On the other hand, the holy book highlights children's respect and obedience to their parents by asking children to:

"Speak to them (parents) a generous word. And, out of kindness, lower to them the wing of humility, and say: 'My Lord! Bestow on them Thy Mercy even as they cherished me in childhood'" (Quran, 17:23-24)

Based on the teachings above, parents feel the responsibility bore upon them by religion to raise their children in the right way and at the same time raise their children so they eventually become obedient. When faced with parenting challenges, par ents sometimes tend to use their authority that is driven from religious text to exercise their harsh parenting techniques. For example, to teach their children to pray, parents are authorized to hit their children as shown by the following quote from the Hadith: "The

Messenger of Allah said: 'Command your children to pray when they become seven years old, and beat them for it (prayer) when they become ten years old' (The Hadith, Sunan Abu Dawood, 495. Book 2, Hadith 105) (p. 366). However, it is essential here to mention that there is controversy in the Muslimcountries on the accuracy of sayings attributed to prophet Muhammed. In order to know whether the Hadith is strongly or weakly attributed to the prophet Muhammed, Hadith scholars have created a classification of all Hadiths to determine how authentic (or not) the Hadiths are (Baraka, & Dalloul, 2014). However, strong and weak Hadiths have become integrated in the Muslim culture, where people refer to and apply those Hadiths to their different aspects of life (Nemri, 2015). The above mentioned Hadith on hitting children to pray is one of the more controversial Hadiths.

Interestingly, in other monotheistic religions such as Christianity and Judaism, the parent–child relationship is built around the same principles. For example, in Christianity, parents are reminded of the valuable position of children; they are considered a heritage from the Lord, the fruit of the womb, a reward (Psalm 127:3). Children are asked to obey their parents in everything to please the Lord (Colossians 3:20), and the parents of a stubborn and rebellious son who does not obey them should have him stoned to death (Deuteronomy 21:18-21). Similarly, in Judaism, parents are asked to support their children, particularly daughters (Babylonian Talmud, Ketubot 49a). In commandment number five, children are asked to honor their parents (Exodus 20:12), and in terms of discipline, parents are asked not to spare the rod (Proverbs 13:24).

Harsh parenting in Muslim Arab families can also be driven from cultural be liefs that the father is the owner of the child and it is his right to raise the child in the best way he considers, whether it is violent or not (AbdulQader & Atyah, 2017). Another cultural proverb in the Arabic culture that encourages harsh physical punishment is: "punishment awaits those who disobey" (AbdulQader & Atyah, 2017). Another cultural proverb in the Arabic culture that encourages harsh physical punishment is: "punishment awaits those who disobey" (AbdulQader & Atyah, 2017). In summary, it can be said that in the Muslim Arabic context, harsh parenting is embedded in culture, where religion is considered an integral aspect.

In Yemen, the culture of harsh parenting is prevalent, as more than 80% of children are reportedly subjected to physical punishment by adults including parents (UNICEF, 2014). Al-Dabhani (2004) paralleled this in his research finding on harsh

punishment, where 82% of the parents in his study believed that using physical punishment was correct, and used punishment upon misbehavior of their children. Alyahri and Goodman (2008) also found that Yemeni children with behavioral and emotional disorders were 2–3 times more likely to experience harsh parenting. With that taken into account, the Yemeni context is a particularly interesting country to scientifically test the role of maternal religiosity in harsh parenting and child behavioral problems.

To extend the literature on harsh parenting, child development and religiosity, it is the purpose of this study to explore the relationships between harsh physical parenting,child behavioral problems, and maternal religiosity in low-income Muslim families who live in slum areas in Yemen.

The Current Study

The current study is guided by the following hypotheses. Firstly, maternal harsh physical parenting, maternal religiosity, and child behavioral problems are interrelated. Secondly, maternal religiosity plays a role in maternal harsh physical parenting and child behavioral problems in two potential ways: (1) Maternal religiosity is a predictor of harsh physical parenting, which in turn leads to child behavioral problems; and (2) Higher maternal religiosity moderates the effect of maternal harsh physical parenting on child behavioral problems.

Methods

Recruitment

A local Yemeni non-governmental organization (NGO), whose aim was to improve the conditions of the poor people through the achievement of social justice, carried out the recruitment and data collection. The main reason for selecting this NGO was that it had been already working in the selected slum settlements in the Taiz governorate. The agreement stipulated that the NGO would terminate data collection for this study at the same time that they would terminate their own work for security reasons because of the war taking place in Yemen. Indeed, during the data collection the NGO decided to terminate their work for security reasons, and therefore the data collection was terminated as well. The head of the NGO was trained online by the first author for recruitment and data collection. After the training, four pilot family field visits were conducted by the local NGO to pilot the instruments and procedure.

Instruments

After the completion of the pilot visits, a home visit procedure was initiated. The study instruments included a questionnaire, a discipline-task video observation, and a vignette experiment. The observational task was adapted to fit the cultural context of the participants based on the NGO's feedback, which was mainly on the type of toys that were piloted. Toys that did not fit within the slum context in terms of their sophistication were changed to simpler toys that were still attractive to the children to play with. The questionnaire was also adapted language-wise as some words had to be changed to the very local dialect of that part of the city. Also, the scale of the measures had to be cut down from 5-point scale to 3-point scale to elicit more accurate answers from the participants. Finally, for the observation method, tools had to be adapted to fit the local context more precisely.

Procedure

For the launch of the data collection, the head of the NGO, along with her assistant, first visited families to brief them on the project and to ask mothers for their informed consent toparticipate in the research. Families who had agreed to participate were then visited again for data collection. To recruit more families who did not belong to the NGO's existing slum network, the NGO worked with community facilitators—women from the local community who played a facilitating role between the NGO staff and the mothers to be recruited.

Data collection was carried out at the participants' homes as mothers in Yemen spend most of their daily life at home and are more at ease indoors than outdoors. Informed consent forms for participation in the study and for the permission of audio and video recording of parts of the home visit were signed by the literate participants. Consent forms were read out loud for those participants who could not read or write and they were videotaped while giving their consent. Compensation for the home visit was given by means of a small gift at the value of US$6.50 to all participating families. However, in the very poor families, the NGO found it more appropriate to buy food items worth $5.50 as a gift. The study protocol was approved by the Ethics Committee of the Institute of Education and Child Studies, Leiden University.

The home visit took about two hours, including the structured discipline-task observation, vignette experiment, and questionnaire. The questionnaire was carried out

in an audio-taped interview format due to the illiteracy rate among women in Yemen, which is 65% as compared to 27% among men (UNFPA, 2017). The questionnaire in questions on the families' background, demographic information, socioeconomic conditions, religion, and child behavioral problems. Questions were translated into Taizi, the local dialect of the Arabic language, and then back-translated to English by a local translator to correct any translation errors across cultures.

Participants

Sixty-two low-income mothers and their 2–6-year-old children participated in this study. The sample consisted of families who lived in an urban slum (71%) or in a rural slum area (29%) in Taiz governorate in the southwest of the Republic of Yemen. Inclusion criteria for mothers and their children were as follows: (1) families had to have been living in the selected urban or rural slum areas for at least six months at the time of data collection; (2) mothers had to have at least one child between 2 and 6 years of age of which they were the biological mother; and (3) families had to be Muslim. Mothersor children with significant physical and/or mental health problems were not included as per the exclusion criterion.

Most of the mothers did not know their age, so obtaining a mean maternal age was difficult. Out of 62 mothers, only three knew their birth month and year, while the rest either said they did not know or provided imprecise or unreliable answers, such as "I say 28 or 29. Actually I can say 27. I don't have a birth certificate" or "I don't know. Well, you can write 40". More than 50% of participants had no education at all (53% illiterate). For the remainder the educational level varied between primary school and secondary school level, while only 5% had a college degree. Most of the mothers in the sample were married (89%), 5% were divorced, and 7% were widows. The mean child age was 38.69 months (SD = 10.09). Fifty-two percent of the participating children were girls. The number of children in the participating families varied: 16% of the target children were the only child in the family, 21% had one sibling, 21% two siblings, 16% three siblings, and 26% of the target children had four or more (up to ten) siblings. None of the mothers had a job, while out of the 55 two-parent families, 36 fathers (58%) had jobs. Almost half of the sample (42%) had no monthly income, 18% had a monthly income below 25,000 Yemeni Rials (YER1000 = US$3.54 at the time of the data collection), 21% above YER25,000, and 19% did not know their monthly income or did not

want to share that information with the data collectors.

Measures

Maternal harsh physical interference. Maternal harsh physical interference was measured in a 5-min disciplinary "prohibition" context (Kochanska, Coy, Murray, 2001). Parents were asked to put a set of culturally appropriate attractive toys in front of their children on the floor. The parents' task was to ensure that their children did not play with or touch the toys. After 2 min, children were allowed to play for another 3 min with only the least attractive teddy bear. Maternal harsh physical interference was coded and referred to the mother's harsh attempts to make the child clean up or stop the child from touching the prohibited object. It also referred to any harsh maternal physical interfering behavior that was meant to reinforce a prohibition/commandment. Harshness is shown by using unnecessary force, which causes a bigger physical impact on the child, e.g., hitting or slapping the child, harshly pulling the child's arm away from the toys, harshly grabbing toys out of the hands of the child, pinching the child's arm, or shaking the child. The scale ranges from 1 (no harsh interference) to 5 (predominant harsh interference). This variable was dichotomized because of limited variability. In the dichotomized scale, we recoded the scores so that a mother who was not harsh (score 1) was scored as 0 and a mother who was scored as harsh (2–5) was scored as 1. Video observations were independently coded by two trained coders. The intercoder reliability (intraclass correlation coefficients, ICC) for the two coders was 0.80.

Maternal Religiosity. We measured maternal religiosity using three items: two vignettes (one involving a boy, one involving a girl) explicitly about religious transgressions, and one open-ended interview question about the goal of parenting in general, without explicitly referring to religion. These three items (all scored 0 or 1) were combined by means of a sum score, with a possible range of 0 to 3.

Religiosity Vignettes. Rossi's factorial survey method (Rossi, Anderson, 1982) is a technique that uses vignettes—brief pieces of text to elicit individuals' beliefs and-judgments. Vignettes are usually short stories of people and their behaviors that partic ipants are asked to respond to and report how they would feel or what they would do themselves in that given situation (Hazel, 1995). Vignettes are a useful method to elic

itopinions on sensitive topics for which participants might avoid or not feel comfortable to discuss their own situation or opinions (Gourlay et al., 2014). In this study, two vignettes involving a boy and two vignettes involving a girl were constructed to elicit comments on maternal religiosity, e.g., "Your relative/neighbor tells you that her son who is 10 years old refuses to go with his dad to Friday's prayer in the mosque. What would you advise her to do?". Each participant was randomly assigned one of the two vignettes involving a boy and one of the two vignettes involving a girl. Participants' answers were audiotaped, transcribed, and translated.Maternal religiosity in each vignette was coded as 0 = religion not mentioned and 1 = religion mentioned in the context of a solution for the transgression described in the vignette: "praying", "prayers", "God", "God's will", "the prophet", "what the prophet said", "Islam", "Muslim", "religious sect" (e.g., Salfi), "afterlife", "Quran", "parent obedience", "judgement day", "heaven", "hell", "God's guidance", "sin", "punishment", "prohibited", "bad deeds", "Satan", "religion", and "reward". Scores on the two vignettes were then combined (sum score) for the religiosity vignettes. Answers in which mothers' mention of religion was only a repetition of the words used in the vignette were not coded as mentions of religion. Intercoder reliability was 0.79.

Religiosity-Based Parenting Goal. Parenting goals in general refer to what parents hope to accomplish through their interaction with their children and are believed to guide parenting behavior (Sigel, McGillicuddy-De Lisi, 2002). Participants were asked about the goal of their parenting in an open-ended question "In your opinion, what is the goal of parenting?". Responses were audiotaped, transcribed, and translated. A maternal religion-based-goal score of 1 was assigned if a mother's answer was based on religious beliefs or influenced by religious beliefs such as "God", "Quran sayings", "God will reward me", "religion", "good deed", "pray", "praying", "prayers", and "fasting". If religion was not mentioned, this was scored as 0. Intercoder reliability was >0.99.

Child Behavioral Problems. To measure children's behaviors, emotions, and relation-ships, all mothers were administered the Strengths and Difficulties Questionnaire (SDQ). The SDQ was translated by the first author into Arabic, adopted by the NGO head into the local dialect of Taiz city and then was back-translated to English by

a local translator to avoid translation errors across cultures. The SDQ consists of 25 items ,with five subscales: emotional problems, peer problems, behavioral problems, hyperactivity, and prosocial behavior (Goodman, 1997; Goodman,2001). Each subscale includes five questions with 3-point response scales ("Not true" = 1, "Somewhat true" = 2, and "Certainly true" = 3). Ten of the 25 items are positively worded "strengths", and were reverse scored if they contributed to the emotional, behavioral, peer, prosocial, or hyperactivity subscales. The overall reliability of the SDQ turned out to be low with a Cronbach's alpha of 0.47. Therefore, items that were suppressing the alpha most were deleted one by one until an acceptable alpha level of 0.60 was reached (Van Griethuijsen et al., 2015). Based on this approach, items 4, 13, 14, 17, 21, and 25 were deleted. From the mothers' answers to these items it was apparent that questions were too difficult for them to understand or did not fit their cultural context in terms of what they refer to, e.g., "Can stop and think things out before acting" or "Sees tasks through to the end, good attention span". The average score on the 19 items was used in the analyses.

Statistical Analyses

Pearson's correlation analyses were conducted to test the interrelations among all variables. If criteria were met, mediation analyses would be performed to identify the role of maternal religiosity as a predictor of harsh physical parenting which in turn leads to child behavioural problems. According to Baron and Kenny (1986) for a mediation to be established, there are four required criteria: (1) the predictor variable should be significantly correlated with the outcome variable; (2) the predictor variable should be significantly correlated with the mediator variable; (3) the mediator variable should be significantly related to the outcome variable controlled for the predictor; and (4) the association between the predictor and the outcome variable significantly weakens when taking into account the mediator. Finally, a moderation analyses was conducted using SPSS process model (IBM, Armonk, NY, USA) to test the moderation role of maternal religiosity in the association between harsh physical parenting and child behavioural problems.

Results

Descriptives of all variables are shown in Table 1. Maternal harsh physical parenting was observed in 23% of the mothers. The average on maternal religiosity was

1.05, indicating that on average mothers mentioned religion once in their response to the two vignettes or the parenting goal question. The mean score for child behavioral problems was 2.00 which meant that on average children showed moderate levels of behavioral problems. We then explored the interrelations between maternal harsh physical parenting, religiosity, and child behavioral problems by Pearson's correlations (see Table 2). A positive correlation between the sum score of the boy-based and girl-based vignettes and the parenting goal measure was found; $r(60) = 0.27$, $p < 0.001$. Mothers who mentioned religion in the vignettes also referred to religion in their response to the parenting goals questions. Furthermore, no significant interrelations between maternal harsh physical interference, maternal religiosity or child behavioral problems were found. The lack of significant associations between these variables meant that the basic criteria for testing mediation (67) were not met. Therefore, mediation analysis was not carried out.

Table 1. Descriptives of maternal harsh physical interference, religiosity variables, and child behavioral problems (N = 62).

Variable	%	*M*	*SD*	Possible Min	Possible Max	Actual Min	Actual Max
(1) Maternal harsh physical interferenc	23						
(present)							
(2) Maternal religiosity *		1.05	0.98	0	3	0	3
Religiosity-based vignettes [a]		0.72	0.74	0	2	0	2
Religiosity-based parenting goal	32	0.32	0.47	0	1	0	1
(3) Child behavioral problems		2.00	0.27	1	3	2	3

* Sum score of vignettes and parenting-goal questions. [a] Higher scores indicate more frequent mention of religion.

Table 2. Correlations between maternal harsh physical interference, religiosity variables, and child behavioral problems.

Variable	1	2	3	4	5
Maternal harsh physical interference	—				
Maternal Religiosity sum score	−0.025	—			
Religiosity-based Vignettes [a]	−0.079	0.885 **	—		
Religiosity-based parenting goal	0.082	0.690 **	0.274 *	—	
Child behavioral problems sum score	0.127	0.065	−0.026	−0.071	—

** $p < 0.01$ (2-tailed), * $p < 0.05$ (2-tailed), [a] Higher scores indicate more religion mentioned.

Maternal Religiosity as A Moderator

To test the hypothesis that maternal religiosity moderates the relation between maternal harsh physical parenting and child behavior problems, a hierarchical multiple regression analysis was conducted. In the first step, two variables were included: maternal harsh physical parenting and maternal religiosity. These variables did not account for a significant amount of variance in child behavior problems ($R^2 = 0.060$, $F(3,55) = 2.116$, $p = 0.109$). However, the interaction term between maternal harsh physical parenting level and maternal religiosity did explain a significant proportion of the variance in child behavior problems ($b = 0.014$, $SE = 0.065$, $p < 0.05$) (Figure 1). This suggested that the association between maternal harsh physical parenting and child behavior prob

lems depended on the level of the mother's religiosity. Figure 2 illustrates this interaction effect, showing the change in the expected probability of child behavioral problems by maternal harsh physical parenting for maternal religiosity. Higher levels of maternal harsh physical parenting were related to more behavior problems in children only when mothers had medium or high levels of religiosity.

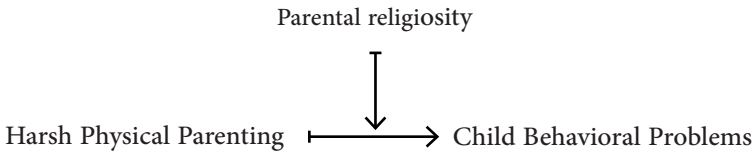

Figure 1. The moderating role of maternal religiosity in the relations between harsh physical parenting and child behavioral problems.

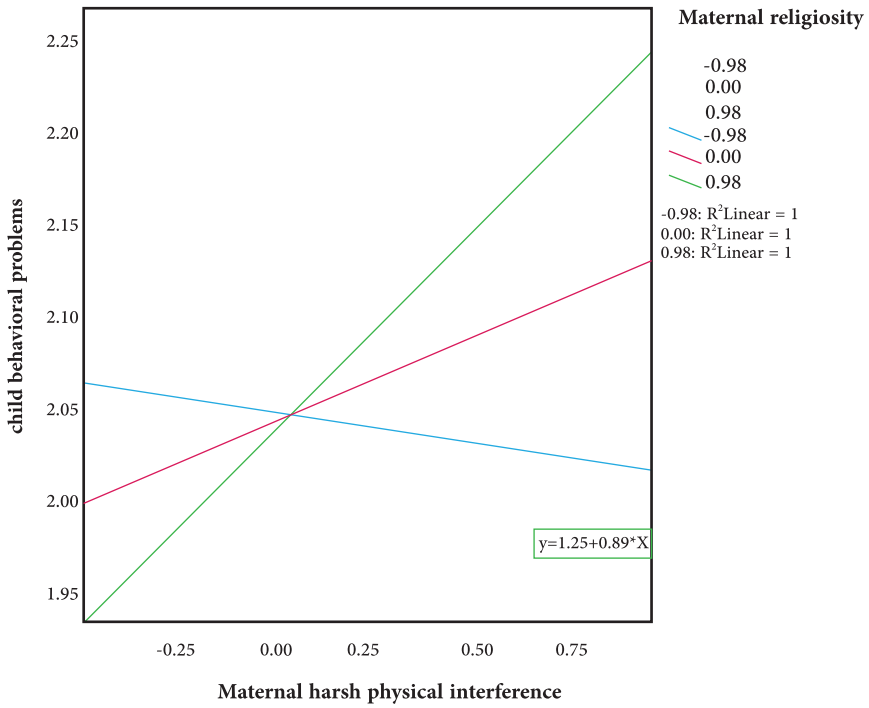

Figure 2. Moderating effect of maternal religiosity for the relation between maternal harsh physical parenting and child behavioral problems.

Discussion

The current study examined the potential role of maternal religiosity in harsh physical parenting and child behavioral problems in low-income Muslim families in Yemen. Findings showed a moderation effect of maternal religiosity in the association between harsh physical parenting and child outcomes. Children whose mothers showed a higher level of religiosity exhibited stronger adverse effects of harsh punishment in comparison to their counterparts whose mothers showed lower levels of religiosity.

Our results of the stronger adverse effects of harsh physical parenting on child behavioral problems in children whose mothers showed higher level of religiosity were in contrary to previous literature (Ellison et al., 2011). From our study one can speculate that the strength of the association between harsh physical parenting and child behavioral problems thus depends on the religiosity context in which it operates. It might be that more religious parents invoke God to validate their harsh punishments, consistent with the notion "The pleasure of Allah (God) is in the pleasure of the parents, and the displeasure of Allah is in the displeasure of the parents" (The Hadith, Al-Bukhari. Al-Adab Al-Mufrad, 2011). When such phrases are used by parents in discipline situations, children might feel shame and fear after harsh discipline as they might consider harsh physical parenting as evidence of parental rejection (Brody & Flor, 1998), and therefore God's rejection. There is evidence that feelings of shame are related to increased risk of internalizing problems such as psychological distress in children (Feiring, Taska, Lewis, 1998) and increased anger, which in turn is associated with more behavior problems (Bennett, Sullivan, Lewis, 2005). In our sample, religious invocations in discipline situations were evident in some mothers' answers to the religiosity vignette questions. For example, in response to a vignette about what a relative should do with her daughter who refuses to wear the traditional cover up garment when going out, one mother said "She should tell her daughter that Allah will not forgive you or absolve you. In other words she should scare her. If it doesn't work then she should hit her". In another example where a daughter refuses to pray, one mother said "She should be strict with her daughter in a way that she can infect her with fear and make her scared so she prays. She should say to her "my daughter, maybe Allah will take you from me or you might get sick or he will put you in big trouble if you don't listen to me and pray". If she doesn't listen then she should hit her".

The absence of a direct association between maternal religiosity and harsh physical parenting in our sample comes in line with previous literature where it has been shown that the effects of maternal physical discipline on child outcomes may not be universal because of contextual factors such as culture, ethnicity, and religion. Our results might be explained by the general level of religiosity of those who live in slums, which is often not as more apparent as it is among the middle class population (Bayat, 2007). Middle-class families not only have the benefit of being able to read and write, being able to educate themselves on religion either from direct sources like books or schools, but also are active citizens who have the time and financial resources to participate more fully in the political role of religion in their lives and their societies. In contrast, learning about religion and applying it in their day-to-day parenting methods might not be on the top list of concerns for the urban slum poor who are busy struggling to make ends meet for basic survival and concrete concerns (Bayat, 2007). It is also important to mention that in our sample, other contextual factors could have played a role in maternal harsh physical parenting, such as the current war condition that Yemen is going through. Taken together, these findings serve as a reminder that links between similar constructs may be different for families in different contexts (Brody, Flor, 1998).

A point of strength of this study is its assessment of religiosity. Because socially desirable answers are more common in collective cultures, religious groups, minority groups, and women (Eisinga, Felling, Peters,1988; Bernardi, 2006), and these characteristics are all applicable to our sample, our religiosity measures were designed to elicit answers indirectly to avoid social desirability as much as possible. Our religiosity questions were presented in the form of vignettes, which are a useful method to elicit opinions on sensitive topics (Gourlay, 2014) implicitly and explicitly. In some of the vignettes, religion was mentioned explicitly while in other vignettes it was mentioned implicitly by presenting themes which were related to religion. Moreover, all vignettes presented a situation that was happening to a relative rather to the participant herself. This was done intentionally to decrease the risk of socially desirable answers; participants are expected to feel more comfortable in giving their true opinion about a situation that concerns someone else rather than themselves. The other question of assessing maternal religiosity was through asking an open question on the goal of parenting without mentioning religion. This allowed parents who found religion of importance in their parenting, to refer to it without being prompted.

A limitation of this study lies in the observation of discipline. It should be acknowledged that this study is the first observational study of maternal harsh parenting in Yemen, in a particularly reserved culture where filming women is an issue. This chal lenge was overcome by the study team (Alsarhi, Rahma, Prevoo, Alink, Mesman, 2018). However, for future studies, more attention should be given to the cultural adaptation of the task. Despite efforts to select task toys that should fit within the slum context, we noticed that the toys were clearly both very unfamiliar and very attractive to mothers and children alike. Some mothers could not stop themselves from playing with the toys and therefore got distracted from the task. This also made some children more frustrated that they were not allowed to play with those attractive toys while their mothers could. For future studies, toys that are more common in the local context or even an entirely different paradigm that is more ecologically valid should be explored. A more ecologically valid way could be to ask the parent about an object in or around the house that the child always wants to touch but is not allowed to, and use that as a starting point for the observation of discipline. The last author, Judi Mesman, has tried this in rural Iran (in a yet unpublished study) and this strategy worked well.

Finally, further studies should consider that the Strength and Difficulties Questionnaire, which is often used and validated to measure child behavioral problems, may not be the best instrument to use in very deprived contexts such as slums. Some behavioral problems presented in the questionnaire, such as the hyperactivity problems, were too abstract for low-educated mothers living in slum conditions whose prominent child-related problems might be related more to physical health problems or basic needs related issues like hunger and general health.

Conclusions

This study contributes to the limited available literature on the role of maternal religiosity in parenting and child outcomes, particularly in a Muslim Arabic context. Maternal religiosity was not directly related to harsh physical parenting. This finding is interesting in a culture where religion is a salient part of people's life. More research needs to be done to investigate other factors that can play a role in individual differences in harsh physical parenting in the Yemeni slum context. Our results emphasize the role of maternal religiosity as a moderator in the relation between harsh physical parenting and child outcomes, with higher religiosity exacerbating the negative effects of harsh

physical parenting on children. The mechanism underlying this moderation needs to be explored in future research. Moreover, for parents with higher levels of religiosity, par enting skills can be addressed as a target for interventions aimed at promoting positive parenting by bodies that work directly with mothers in slum areas like local NGOs, child clinics, and public organizations, etc. This recommendation comes in line with previous research which showed that besides parenting practices, culture plays a significant role in parenting (Nemri, 2015). This can be done by relating positive parenting skills to religious teachings that highlight warmth, support, and care towards children as for instance in this Hadith about the prophet's sensitivity to children "The Prophet kissed his grandson Al-Hasan bin 'Ali in the presence of Al-Aqra' bin Habis. Thereupon he remarked: "I have ten children and I have never kissed any one of them". Messenger of Allah looked at him and said, "He who does not show mercy to others will not be shown mercy" (The Hadith, Al-Bukhari and Muslim, Book 1, Hadith 225).

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6

General Discussion

General Discussion

The aims of this dissertation were to examine the feasibility of conducting observational parenting research "off the beaten track" in the Muslim Arabic cultural context of Yemen, to answer questions about predictors of parenting, and associations of parenting with child behavior in that context, and to examine if they would yield similar results to those found in Western-sample-based research. After the research topic was introduced in Chapter 1, Chapter 2 outlined background and culture of the research context in Yemen. Chapter 3 examined the feasibility of assessing maternal sensitivity using video observation within restricted veiled Muslim Arabic culture which proved to be possible even though with some challenges. Furthermore, maternal sensitivity appeared to be meaningfully related to other parenting dimensions like higher maternal education and experienced social support. In Chapter 4, we examined the unique effects of parental education and intelligence on maternal sensitivity and the mediating role of partner conflict in this association. Results revealed that mothers' level of education rather than their level of intelligence was a predictor of their level of sensitivity towards their children. Findings also suggested a mediational role of partner conflict in the relation between parental education and maternal sensitivity. Specifically, low-educated mothers reported more partner conflict which was in turn associated with lower levels of maternal sensitivity towards their children. Chapter 5 examined the potential role of maternal religiosity in harsh physical parenting and child behavioral problems in low-income Muslim families in Yemen. Findings showed a moderation effect of maternal religiosity in the association between harsh physical parenting and child outcomes. Children whose mothers showed a higher level of religiosity exhibited stronger adverse effects of harsh punishment in comparison to their counterparts whose mothers showed lower levels of religiosity.

Theoretical Implications

Bronfenbrenner's bioecological model guided the studies in this dissertation. In his model, Bronfenbrenner refers to the context in which human development occurs as a set of proximal and distal "nested structures". Proximal structures refer to those who most immediately and directly impact a child's development, including parents, school, religious institutions, neighborhood, and peers while distal refers to the cultural and eco nomic contexts a child grows up in. Our results support some relations outlined by this

model in an "off the beaten track" culture like the non-Western Arab Muslim culture of Yemen.

Cultural Aspects of the Research Instruments

Based on the notion that research in culturally different groups, as it is the case in ethnic minorities, requires instruments that are sensitive to cultural and contextual variations (Canino & Bravo, 1994), this dissertation studied parenting and child development using Western-based measures across linguistically, culturally and contextually different Arab Muslim population with some adaptations to that specific culture. In cross-cultural research, two different approaches are identified; the emic and etic approach (Berry, 1969; Pike, 1967). The emic approach studies behavior of a particular society from within, takes into consideration the insider's perspective, and structures are discovered by the analyst. The etic approach on the other hand, studies behavior from a position outside the system or the society, and structures are created by the analyst (Pike, 1966). In the etic approach, criteria are considered universal while in the emic approach criteria are relative to internal characteristics (Pike, 1966). Even though we did adapt some of the measures that made it possible to work within a strictly veiled culture, we still measured the constructs as they had been originally developed. This enabled cross-cultural comparisons inherent to the etic perspective.

The adaptations of the measures we used were mainly done to be able to measure the original construct in a veiled culture and to increase the validity in this specific culture. Two major observational Western parenting measures that we used were the Ainsworth maternal sensitivity observation measure (Ainsworth, Bell, & Stayton, 1974) and the discipline "don't touch" task observation measure (Kochanska et al., 2001). Adaptations of these two measures included the selection of the video observation location, the tasks to be carried out, and the type of toys to be used. The observation location was carried out at home as requested by the mothers who were veiled and would only allow filming them in their homes. For the maternal sensitivity measure, what to do during the interaction task was left for the mothers to decide upon. Tasks chosen by the mothers included cooking, folding clothes, feeding and giving a bath to their children. As for the type of toys used in the discipline measure, toys were selected to fit within the slum context. This meant that too attractive toys were eliminated from the proposed toys to use after the consultation with the head of the local NGO who also had gathered advice

from the local facilitators who were involved in this project. Other measures that were also adapted were the questionnaires that were translated (and back-translated) using the most local dialect used in our research area. Moreover, the language used in the questionnaires was somewhat simplified – without changing the meaning of the questions – to help the uneducated mothers understand the questions better. In addition, we interviewed our participants instead of using self-report methods as most of our participants were illiterate. Some of the questionnaires' scales like *The Conflict Tactics Scale* (Straus, Hamby, Boney-McCoy & Sugarman, 1996) were minimized from five to three options taking into consideration the low level of education of most of our participants which made the distinction between the scales' options puzzling for some of the participants. As for the intelligence test measure, we used the short version of Raven's Progressive Matrices which is used throughout the world as an indicator of general intelligence (Raven, 2000). Raven's measure was selected in this study because of its frequent international use (Vijver, 1997) and because of its non-verbal format,which is suitable for this study's sample where more than half of the mothers (53%) had no education at all. In addition, only three sets within the test out of five sets of twelve matrices were presented to our participants, to minimize the burden to the participants who were not used to these types of tests. All measures used in this dissertation generally yielded similar results to the results available from the Western literature about parents who live in contexts characterized by low social economic status. The following section sheds light on the challenges and future directions of the culturally adapted measures we have used in this dissertation.

Maternal Sensitivity Observational Measure

In this study, the non-Western micro-context of the family was studied where mothers and their children were observed using a common Western video observational parenting measure. In that context, completely veiled mothers were filmed and observed while interacting with their children in a naturalistic settling. We found that this Western-based video observation measure of sensitivity was a feasible measure in the "off beaten track" non-Western Arab Muslim culture although with some limitations that will be discussed in detail in the limitations section later on. Maternal sensitivity scores showed significant variation and were independent of some of the variables that might be influenced by the video procedure. Results revealed that 58% of the mothers showed

predominantly insensitive behavior which is in line with the literature on parenting styles in traditional countries such as Yemen that tend to be more authoritarian (Dwairy, 2006), and in line with results from low-educated/poor Western samples (Mesman, van IJzendoorn and Bakermans-Kranenburg, 2012).

Moreover, similar to the Western based literature, maternal sensitivity was found to be positivity related to maternal education, maternal social support, and negatively to partner conflict. Mothers with more education, more social support and less partner conflict were more sensitive than mothers with lower education and social support and more partner conflict. Mothers with more education, more social support and less partner conflict were more sensitive than mothers with lower education and social support and more partner conflict. This confirms findings in previous Western studies where educated mothers were found to be more sensitive and less intrusive toward their children (Tamis-LeMonda et al. 2004), show more positive responses to infant behavior and distress (Diehl, 1997), and have a less controlling style in parent-child interactions (Ispa et al. 2004). The literature also shows that mothers who experience low social support demonstrated a decrease in maternal sensitivity over time (Mertesacker, Bade, Haverkock, & Pauli-Pott, 2004), and that mothers who experience partner conflict show lower levels of parenting warmth (Levendosky et al., 2000, 2001), and are likely to provide less supportive environments for their children (Belsky, 1984; Conger et al., 1990).

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However, in contrast to the available literature which is based on Western samples, we were able to study the independent roles of maternal education and maternal in telligence in predicting maternal sensitivity. Our results showed that maternal education

rather than maternal intelligence predicted maternal sensitivity. Our results revealed that maternal education and maternal intelligence reflect more distinct variables where education is the driving factor in the association with maternal sensitivity rather than intelligence. In most of the Western literature, education and intelligence are highly correlated so it is difficult to interpret the findings of the association with maternal sensitivity. In the Yemeni context, intelligent mothers are not necessarily educated, and because of a lack of access to education could even be illiterate in spite of their general intellectual ability. It seems that education of mothers helps them to be able to respond sensitively to their child, perhaps through better problem solving skills, increased knowledge that can help mothers in their parenting, or – as we have shown in Chapter 4 – a decreased risk of partner conflict. Future studies within the Yemeni context should delve into the mechanisms of the effects of education to test the causal role of education in predicting sensitivity to gain more knowledge about those two constructs and whether those results are particular to the Yemeni context or can be generalized to other developing countries as well.

Parental Discipline and Religiosity

In the second empirical report, we focused further on other important proximal aspects of child environment which were parental discipline and parental religiosity. In Chapter 5, we specifically examined the potential role of maternal religiosity in harsh physical parenting and child behavioral problems in a slum context in Yemen. Religion - which is considered as one as a cultural factor that could influence the association between harsh physical parenting and child behavioral problems. The findings showed a moderation effect of maternal religiosity in the association between harsh physical parenting and child outcomes. In children whose mothers showed a higher level of religiosity, harsh punishment was more prevalent aspect of culture (Decety, 2015) - was examined strongly related to child behavior problems in comparison to their counterparts whose mothers showed lower levels of religiosity. This results was contrary to what we found in the literature where children whose mothers were more religious exhibited minimal adverse effects of physical punishment in comparison to their counterparts whose mothers were less religious (Ellison, Musick & Holden, 2011). Therefore, our findings of this study contribute uniquely to the literature on religion in relation to parenting which has mainly focused on Judeo-Christian religions (Mahoney, et al., 2008;

Mahoney, 2010) by providing different insight into the role of religion and how it may shape parent–child relationships in a Muslim population. This study has also contributed to the literature by highlighting the idea that the association between parenting and child development depends on contextual factors. This finding supports assertions in the literature that the effects of parental physical discipline on child outcomes may not be universal as contextual factors such as culture, ethnicity, and religion can play a role in that relation (Pinderhughes, Dodge, Bates, Pettit, & Zelli, 2000; Landsford et al. 2005). This finding is also in line with research showing that besides parenting practices, culture, which religion is possibly one prevalent aspect of it (Decety, 2015), plays a significant role in parenting (Nemri, 2016). These results may imply that culture is a key in the child-parent relationship. For future studies on Muslim culture and parenting, one can suggest interventional research on the causal role of positive aspects of the Muslim parent-child religious teachings and test how that would play a role in harsh parenting. This can be done by educating mothers on parenting practices using positive parenting skills driven from religious teachings that highlight warmth, support, and care towards children and investigating whether harsh parenting practices would decrease as a result.

Challenges

Future research could build on the results attained in this dissertation but also address some of this studies' limitations. Research investigating young children growing up in low-income slum families in an Arab Muslim context is sparse. This dissertation, being the first of its kind, contributes to literature about parenting in non-Western cultures. Applying Western parenting measures like the video observational measures has never been tested previously in a veiled strict culture towards women where filming women is taboo. Furthermore, this dissertation gives new insights into some parenting factors in that context in comparison to the available mainstream Western-sample-based research.

The environment in the slum areas in Yemen is characterized by restrictions in terms of video observation location and setting due to the veiled culture where women spend most of their time at home, and object to being photographed or filmed even when veiled. Because mothers in Yemen spend most of their daily lives in the home, the video observation took place at home. This had many implications for the observation of some mothers and their children alike. Even though the veil was supposed to make mothers

feel more comfortable in front of the camera, some mothers still showed many behaviors that indicated they were not comfortable being filmed and remained acutely aware of being filmed. For some children, being filmed doing an activity at home with their mothers was a new experience as they usually spend most of their time outside playing. Anecdotally it was notable that in general, most of the children were amazed, amused, or entertained by the presence of a video camera at home, but some also seemed afraid, and froze in front of the camera unable to interact with their mothers who tried hard to keep their children engaged. Others stared, whispered to their mothers, cried, giggled or even disappeared from the camera scene. Some children kept trying to walk away from the location of the observation wanting to play outside. When children wanted to play outside of the home as they usually would do, they were prevented to do so by their mothers as mothers did not want to be filmed outside their homes. For future studies, naturalistic observation can be adapted by prolonging the filming time where mothers would get used to the camera and most possibly forget about its presence. Another suggestion would be to film the mother-child interaction in a time where usually the home with their mothers. This could be during the evenings when children are at home or during meal times.

Another challenge of the observational measures was the number of people present while filming. As mentioned earlier, Yemeni family sizes are large and therefore during the home visit, there were many people present besides the mother and the target child. The number of people present at the location of the video observation apart from the mother and the target child was high ($M = 6.49$, $SD = 3.43$). People present were not only family members (i.e., other children of the mother, her husband, relatives) but also curious neighbors and acquaintances who for the first time came in close contact with a video camera. To minimize the level of distraction for the mothers in homes where the number of people present was large, people present were allowed to stay in the observation location but not in the scene in front of the camera. This was in line with the wishes of many female relatives and neighbors who did not want for themselves to appear in the video. This however, created some awkwardness for some mothers as they were children would be at being observed not only by the video camera but also by other people present who were standing behind the camera. Some of the children and adults present ended up instructing either the child or the mother on how they should behave in front of the camera. In those occasions, attempts by the research assistant to prevent

instructions to the mother were in vein. Women and children who were present felt that they were part of the show and wanted to help the mother in any way they could. As a solution for future studies, the timing of the filming can be changed to the evenings when visitors are usually not around. Another option is to prolong the filming time in which visitors might eventually leave and more one-on-one mother-child interaction might occur.

One last challenge of the observational tasks was the nature of the tasks. Mothers were observed during two different video observational tasks. One was a naturalistic observation to measure maternal sensitivity and the other was the don't touch task to measure maternal discipline. In the naturalistic observation task, mothers were asked to do what they would normally do with their children. As mentioned above, Yemeni children usually play outside the home in the street. Mothers do not spend time with their children at home doing activities such as playing, conversing or simply spending time together. Thus, the observation task created a challenge for some mothers as they often did not understand what type of activity they were expected to do or did not know what to do. To avoid the situation of no interaction, the research assistant suggested some interaction activities based on advice from some mothers and community facilitators. However, once examples were offered to those mothers who did not know what to do as an activity, a small number of mothers basically did the activity suggested to them as an example even though it would be something they usually did not do with their children. This was reflected in the awkwardness of the situation during the activity for those mothers and their children alike where activities clearly did not approximate an actual everyday interaction between mother and child. Such activities that were used as examples by the research assistant, and then duly taken as literal instructions by the mothers included chores like folding clothes and cooking, which were a major theme of the activities chosen by some mothers. For future studies, more pre-investigation within the slum community of what type of activities mothers do with their children would be helpful. This could be done by asking more mothers of what they usually do with their children or simply by having a female researcher who would mingle with mothers to have a closer view of what type of activities they usually do with their children.

The other observational task was the don't touch task which aimed at measuring maternal discipline through a play session between the mother and child. One challenge in this task was the playtime that the mother was supposed to spend with her

child. Some mothers simply did not play with their children during the whole observation, while others did not feel at ease playing with their children. This is in line with results from studies in other non-Western contexts, where parent-child play is not considered part of the parent's role (Super and Harkness, 1986; Lancy, 2007; Salinas, Fouts, Neitzel, & Bates-Fredi, 2019), Another challenge was the type of toys selected for this observation task. Despite great efforts from the research team to select the task toys that fit within the slum context, yet the toys presented a challenge for the children and mothers alike as they may have been too attractive or completely unfamiliar to them. This resulted in some mothers themselves exploring and playing with the toys while their children would watch them in frustration. For future studies, the don't touch task can be adapted to suit the cultural context. This could be done by asking mothers to prevent their children from touching something they already have at home and the children usually are not allowed to touch it, like a mobile phone, tools that are used in the kitchen, or for sewing, etc.

Challenges were also faced when using the questionnaires. Some of the questionnaires were difficult to comprehend by our participants. For example, the Strength and Difficulties Questionnaire, which is often used and validated to measure child behavioral problems included some behavioral problems, presented some problems such as hyperactive behaviors which were too abstract for low-educated mothers living in slum conditions whose prominent child-related problems might be more related to physical health problems or basic needs related issues like hunger and general health. Future studies in similar samples should consider using questions that are phrased less abstract. Other questionnaires were simply dropped after interviewing half of the mothers in our sample as the answers showed the mothers did not really grasp the content of the question which was about what people in other countries could learn from their parenting.

Implications for Future Studies

The results of this dissertation were based on a cross sectional, non-experimental design which makes it impossible to conclude anything about causality. Therefore, future research can test causal relations of some of the cross-sectional relations presented in this dissertation using experimental research. For example, the causal role of sensitive parenting on young children's resilience can be tested by improving mater nal sensitivity and then testing if children's wellbeing in general and behavior problems

in specific will be influenced. Also the role of education can be tested by improving education (in a randomized controlled trial) and investigating if partner conflict decreases and sensitivity improves as a result of this. Similarly, future studies can test the role of partner conflict by attempting to reduce it and testing whether that will improve sensitivity, and the role of harsh discipline by using an intervention aimed at reducing harsh discipline and testing whether it would decrease child behavior problems.

Moreover, our results showed that there was high number of mothers who were insensitive, which might suggest the idea of implementing a parenting program that increases sensitivity. An example of an intervention program for at-risk mothers who experience higher levels of sociodemographic risk is Mom Power (MP) (Muzik et al. 2011). The program key intervention principles are focused around the importance of trust-enhancing self-efficacy through empowerment, and skills-building around self-care/mental health, problem-solving, and parenting competence (Muzik, et al., 2015). The program includes 10-weekly group intervention sessions and three individual sessions. This type of intervention can work in the Yemeni collective culture where people prefer to do things more in groups rather than individually. Mothers' group discussions led by professional facilitators might lead to successful results in terms of improved parenting skills in the less sensitive mothers.

Moreover, our results have shown that maternal education is associated with maternal sensitivity. Mothers who were more educated showed more sensitivity to their children. Therefore, intervention research can be suggested to improve education and to test whether sensitivity improves and partner conflict decreases. In addition, our results showed that maternal education rather than maternal intelligence is associated with maternal sensitivity.

Our results also emphasized the role of maternal religiosity as a moderator in the relation between harsh physical parenting and child outcomes, with higher religiosity exacerbating the negative effects of harsh physical parenting on children. For those parents with higher levels of religiosity, future studies can be suggested to test parenting skills interventions which aim at promoting positive parenting by bodies that work directly with mothers in slum areas like local NGOs, child clinics, and public organizations, etc. This can be done by incorporating positive parenting skills with religious teachings that highlight warmth, support, and care towards children.

Finally, all the studies in the present dissertation focused only on maternal

background, views and behaviors. Having obtained information on fathers' background like their level of education, intelligence, religiosity and on their general role in rearing their children, would have given a clearer picture of child development in Yemeni slums. For example, one might expect to find that the level of the father's religiosity also plays a role in child behavioral problems or in harsh parenting. In a culture where rearing young children is solely a mother's task, learning more on how father-related variables would be associated to children's behaviors, emotions, and relation-ships would be a great asset to literature on this sample.

Concluding Remarks

This dissertation shows the applicability of the video observation of parenting in the non-Western Arab Muslim slum context in Yemen. To our knowledge, this is the first attempt to study parenting in a culture where filming fully veiled women is a challenging task. Moreover, the studies in this dissertation have yielded some meaningful results on factors that play an important role in child development such as maternal sensitivity, education, religiosity, harsh parenting and partner conflict. Even though the results of this dissertation raise a lot more questions, its studies are first steps in the direction of getting more knowledge about parenting and child development in a Yemeni Arab Muslim Slum context. We hope with its valuable results, this dissertation opens the door for future research using naturalistic video observation measures which can help to increase our knowledge on parenting and child development in that context in general and to be able to contribute to parenting support and child development in Yemen in particular.

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7

Appendices

Summary in English

Mainstream research on parenting has revealed only part of the parenting picture as it mainly focuses on Western high-income countries, with far less research in low- and middle-income countries (Knerr, Gardner, & Cluver, 2013; Henrich, Heine, & Norenzayan, 2010). The scarcity of parenting research is even more apparent when trying to zoom in to subgroups within countries and regions for which it is still unclear whether findings and models from mainstream research can be generalized to low-income families (Hill, Burdette, Regnerus & Angel, 2008) and specifically to low-income families in the developing world. The general aim of this thesis is to shed light on parenting in slums in the Muslim Arabic culture of Yemen. Being one of the least developed countries in the world, where the vast majority of its population live in rural and tribal areas (World population Review, 2018), having the 30th highest fertility rate in the world (World Population Review, 2018) at 4.45 children per woman (World Bank, 2019), and being a country where women are fully covered in a conservative gender-segregated culture, Yemen provides a truly 'off the beaten track' context for the research on parenting. The findings of this study will help to address the knowledge gap in parenting research on cultures "off the beaten track" in comparison to the available mainstream Western research.

Study Objectives

Because this is the very first study of its kind in Yemen, the first aim was to examine if we can conduct parenting observational research in this "off the beaten track" Muslim Arabic culture context in a meaningful way, and to discuss the challenges of conducting this type of research in a different context where women are fully covered. The second aim was to answer questions about factors related to parenting in that context and examine if they would yield similar results to the available Western-sample-based research. We investigated a) Whether parental education and intelligence are potential unique predictors of parental sensitivity in mothers in deprived slum areas in Yemen, and further tested partner conflict as a potential mechanism within this relation; b) If maternal harsh physical parenting, maternal religiosity, and child behavioral problemsare interrelated and whether maternal religiosity plays a predictive or a moderating role in the association between harsh physical parenting and child behavioral problems.

Yemen Background

The Republic of Yemen is located at the southwest tip of the Arabian Peninsula. It is bordered with the Red Sea in the west, the Sultanate of Oman in the east, Saudi Arabia in the north, and the Arabian Sea in the South. In January 2011, Yemen became part of what was called 'Arab Spring' where protesters were calling for the end of the 33-year rule by the president Ali Abdallah Saleh. However, since 2015, Yemen, which was already one of the Arab world's poorest countries, has been shattered by a war between forces loyal to the internationally-recognized government of the president and those supporting the Houthi rebel movement. Yemen is now facing the world's largest humanitarian crisis where 82% of its population needs humanitarian assistance and protection (United Nations office for the coordination of humanitarian Affairs, 2017).

Yemen's social structure preserves a distinctive split between the public and private spheres. As part of their culture and religion, women in Yemen cover their bodies from head to toe – heads with a scarf and their faces with a veil called Hijab – when they are outside their homes and specifically when men are around. In a veiled culture, photographing women is a taboo and using a video camera to film women at home is a great challenge.

Informal settlements in Yemen, which are usually labeled as "ashwa'i" (El Shorbagi 2007) harbor 61% of the population of Yemen (World Bank, 2014). Multidimensional deprivation characterizes those "Ashwa'i" settlements.

Sample of The Current Study

This study's sample consisted of 62 low-income mothers with children aged 24 – 60 months (2 – 6 years) of whom 71% lived in an urban slum and 29% in a rural slum area in Taiz governorate, in the southwest of the Republic of Yemen. . Participants were recruited via a local NGO that strives to achieve social justice through projects that can create equal employment opportunities, reduce unemployment and improve living con dition for the poor. The NGO was selected based on the fact that this organization was already working in the selected slum settlements. The head of the NGO conducted data collection for this study as part of the NGO's current work in the slums. This implied that once the NGO decided to terminate its own field work for security reasons associated with the current war in Yemen, the data collection for this study was terminated as well. After collecting data from 62 families, the NGO decided to terminate its primary

activities for security reasons, thus also ending data collection.

Maternal Sensitivity Observational Measure

In this study, the non-Western micro-context of the family was studied where mothers and their children were observed using a common Western video observational parenting measure. In that context, completely veiled mothers were filmed and observed while interacting with their children in a naturalistic setting. In Chapter 3, we found that this Western-based video observation measure of sensitivity was a feasible measure in the "off the beaten track" non-Western Arab Muslim culture although we encountered some challenges. Maternal sensitivity scores showed significant variation and were independent of some of the variables that might be influenced by the video procedure. Results revealed that 58% of the mothers showed predominantly insensitive behavior, which is in line with the literature on parenting styles in traditional countries such as Yemen that tend to be more authoritarian (Dwairy, 2006), and in line with results from low-educated/poor Western samples (Mesman, van IJzendoorn, & Bakermans-Kranenburg, 2012).

Moreover, similar to the Western-based literature, maternal sensitivity was found to be positivity related to maternal education, maternal social support, and negatively to partner conflict, as is shown in Chapters 3 & 4. Mothers with more education, more social support and less partner conflict were more sensitive than mothers with lower education and social support and more partner conflict. In most of the Western literature, education and intelligence are highly correlated so it is difficult to interpret the findings of the association with maternal sensitivity. In the Yemeni context, intelligent mothers are not necessarily educated, and because of a lack of access to education could even be illiterate in spite of their general intellectual ability. However, in contrast to the available literature, which is based on Western samples, we were able to study the independent roles of maternal education and maternal intelligence in predicting maternal sensitivity. Our results showed that maternal education rather than maternal intelligence predicted maternal sensitivity. Our results revealed that maternal education and maternal intelligence reflect more distinct variables, where education is the driving factor in the association with maternal sensitivity rather than intelligence. It seems that schooling of mothers helps them to be able to respond sensitively to their child, perhaps through better problem solving skills, increased knowledge that can help mothers in their parenting,

or – as we have shown in Chapter 4 – a decreased risk of partner conflict. Future studies within the Yemeni context should delve into the mechanisms of the effects of schooling to test the causal role of schooling in predicting sensitivity to gain more knowledge about those two constructs and whether those results are particular to the Yemeni context or can be generalized to other developing countries as well.

Parental Discipline and Religiosity

In Chapter 5, we specifically examined the potential role of maternal religiosity in harsh physical parenting and child behavioral problems in a deprived slum context in Yemen. Religion – which is considered as one prevalent aspect of culture (Decety, 2015) – was examined as a cultural factor that could influence the association between harsh physical parenting and child behavioral problems. The findings showed a moderation effect of maternal religiosity in the association between harsh physical parenting and child outcomes. In children whose mothers showed a higher level of religiosity, harsh punishment was more strongly related to child behavior problems in comparison to their counterparts whose mothers showed lower levels of religiosity. This finding contributes uniquely to the literature on religion in relation to parenting, which has so far mainly focused on Judeo-Christian religions (Mahoney, et al., 2008; Mahoney, 2010), by providing insight into the role of religion and how it may shape parent–child relationships in a Muslim population.This study has also contributed to the literature by highlighting the idea that the association between parenting and child development depends on contextual factors. These results may imply that culture is the key in the child-parent relationship. For future studies on Muslim culture and parenting, one can suggest interventional research on the causal role of positive aspects of the Muslim parent-child religious teachings and test how that would play a role in harsh parenting. This can be done by educating mothers on parenting practices using positive parenting skills driven from religious teachings that highlight warmth, support, and care towards children and investigating whether harsh parenting practices would decrease as a result.

Challenges

Future research could build on the results attained in this dissertation but also address some of this study's limitations. Applying Western parenting measures like the video observational measures has never been tested previously in a veiled culture that is

strict towards women and where filming women is taboo. The environment in the slum areas in Yemen is characterized by restrictions in terms of video observation location and setting due to the veiled culture where women spend most of their time at home, and object to being photographed or filmed even when veiled. Because mothers in Yemen spend most of their daily lives in the home, the video observation took place at home. This had many implications for the observation of some mothers and their children alike. Even though the veil was supposed to make mothers feel more comfortable in front of te camera, some mothers still showed behaviors that indicated they were not comfortable being filmed. For future studies, naturalistic observation can be adopted by prolonging the filming time where mothers would get used to the camera and most possibly forget about its presence.

Another challenge of the observational measures was the number of people present while filming. People present were not only family members (i.e., other children of the mother, her husband, relatives) but also curious neighbors and acquaintances who for the first time came in close contact with a video camera. This however, created some awkwardness for some mothers as they were being observed not only by the video camera but also by other people present who were standing behind the camera. As a solution for future studies, the timing of the filming can be changed to the evenings when visitors are usually not around. Another option is to prolong the filming time in which visitors might eventually leave and more one-on-one mother-child interaction might occur.

One last challenge of the observational tasks was the nature of the tasks. Mothers were observed during two different video observational tasks. One was more or less naturalistic observation to measure maternal sensitivity and the other was the 'don't touch' task to measure maternal discipline. In the naturalistic observation task, mothers were asked to do what they would normally do with their children. However, Yemeni children usually play outside the home in the street. Mothers do not spend much time with their children at home doing activities such as playing, conversing or simply spending time together. Thus, the observation task created a challenge for some mothers as they often did not understand what type of activity they were expected to do or did not know what to do. For future studies, more pre-investigation within the slum community of what type of activities mothers do with their children would be helpful. This could be done by simply having a female researcher who would mingle with mothers before data collection, to have a closer view of what type of activities they usually do with their children.

The other observational task was the 'don't touch' task, which aimed at measuring maternal discipline. Despite great efforts from the research team to select task toys that fit within the slum context, yet the toys presented a challenge for the children and mothers alike as they may have been too attractive and/or completely unfamiliar to them. This resulted in some mothers themselves exploring and playing with the toys while their children would watch them in frustration. For future studies, the 'don't touch' task can be adapted to better suit the cultural context. This could be done by asking mothers to prevent their children from touching something they already have at home and the children like, but are usually not allowed to touch, like a mobile phone, tools that are used in the kitchen, or for sewing, etc.

Conclusion

This dissertation shows the applicability and some challenges of the video observation of parenting in the non-Western Arab Muslim slum context in Yemen. To our knowledge, this is the first attempt to study parenting using video observation in a veiled culture. Moreover, the studies in this dissertation have yielded some meaningful results on factors that play an important role in child development such as maternal sensitivity, education, religiosity, harsh parenting and partner conflict. Even though the results of this dissertation raise a lot more questions, its studies are first steps in the direction of getting more knowledge about parenting and child development "off the beaten track". We hope with its valuable results, this dissertation opens the door for future research using naturalistic video observation measures which can help to increase our knowledge on parenting and child development in that context in general and to be able to contribute to parenting support and child development in Yemen in particular.

Nederlandse Samenvatting (Summary in Dutch)

Onderzoek naar opvoeding heeft tot nu toe slechts een deel van het opvoedingsbeeld aan het licht gebracht, omdat het zich voornamelijk richt op Westerse landen met een hoog inkomen, en er veel minder onderzoek is gedaan in ontwikkelingslanden (Knerr, Gardner, & Cluver, 2013; Henrich, Heine, & Norenzayan, 2010). De schaarste aan opvoedingsonderzoek is nog duidelijker wanneer we inzoomen op subgroepen binnen landen en regio's waarvoor nog onduidelijk is of bevindingen en modellen uit het reguliere onderzoek kunnen worden gegeneraliseerd naar gezinnen met lage inkomens (Hill, Burdette, Regnerus & Angel, 2008), en specifiek naar gezinnen met lage inkomens in ontwikkelingslanden. Het algemene doel van dit proefschrift is om licht te werpen op opvoeding in sloppenwijken in de islamitische Arabische cultuur van Jemen. Als één van de minst ontwikkelde landen ter wereld, waar de overgrote meerderheid van de bevolking in tribale plattelandsgebieden woont (World Population Review, 2018), het vruchtbaarheidscijfer zeer hoog ligt op 4,45 kinderen per vrouw (Wereldbank, 2019), en waar vrouwen volledig zijn bedekt in een conservatieve, naar sekse gescheiden cultuur, biedt Jemen een echt 'buiten de gebaande paden'-context voor onderzoek naar opvoeding. De bevindingen van deze studie zullen helpen om de kenniskloof in opvoedonderzoek over culturen 'buiten de gebaande paden' te dichten in vergelijking met het beschikbare reguliere Westerse onderzoek.

Onderzoeksdoelen

Omdat dit de allereerste studie in zijn soort in Jemen is, was het eerste doel om te onderzoeken of we observatieonderzoek naar opvoeding in deze "buiten de gebaande paden" islamitische Arabische cultuurcontext op een zinvolle manier kunnen uitvoeren, en om de uitdagingen van het doen van dit soort onderzoek in een andere context waarin vrouwen volledig bedekt zijn in kaart te brengen. Het tweede doel was om vragen te beantwoorden over factoren die samenhangen met opvoeding in die context en te onderzoeken of deze vergelijkbare resultaten zouden opleveren als het beschikbare onderzoek op basis van Westerse steekproeven. We onderzochten a) Het onderwijsniveau en de intelligentie van moeders potentiële unieke voorspellers zijn van hun sensitieve respon siviteit ten opzichte van hun kinderen in achtergestelde sloppenwijken in Jemen, en of partnerconflict een potentieel mechanisme daarin kan zijn; b) Het verband tussen hard

handig opvoeden door moeders, religiositeit van moeders en gedragsproblemen van kin deren, en of religiositeit van moeders een voorspellende of een modererende rol speelt in het verband tussen hardhandig opvoeden en gedragsproblemen van kinderen.

Jemen: achtergrond

De Republiek Jemen ligt op het zuidWestelijke puntje van het Arabische schiereiland. Het grenst aan de Rode Zee in het Westen, het Sultanaat van Oman in het oosten, Saoedi-Arabië in het noorden en de Arabische Zee in het zuiden. In januari 2011 werd Jemen onderdeel van de zogenaamde 'Arabische lente', waar demonstranten opriepen tot het einde van de 33-jarige regering door de president Ali Abdallah Saleh. Sinds 2015 is Jemen, dat al één van de armste landen van de Arabische wereld was, echter verscheurd door een oorlog tussen strijdkrachten die loyaal zijn aan de internationaal erkende regering van de president en degenen die de rebellenbeweging van Houthi steunen. Jemen wordt nu geconfronteerd met de grootste humanitaire crisis ter wereld, waar 82% van de bevolking humanitaire hulp en bescherming nodig heeft (VN-bureau voor de coördinatie van humanitaire zaken, 2017).

De sociale structuur van Jemen kent een strikte scheiding tussen het publieke en het private domein. Als onderdeel van hun cultuur en religie bedekken vrouwen in Jemen hun lichaam van top tot teen – hun hoofden met een sluier en hun gezichten met een Hijab - wanneer ze buitenshuis zijn en specifiek wanneer mannen in de buurt zijn. In een gesluierde cultuur is het fotograferen van vrouwen een taboe en het gebruik van een videocamera om vrouwen thuis te filmen een grote uitdaging.

Informele nederzettingen in Jemen (of sloppenwijken), die meestal worden aangeduid als "ashwa'i" (El Shorbagi 2007) herbergen 61% van de bevolking van Jemen (Wereldbank, 2014). Meervoudige deprivatie kenmerkt die "Ashwa'i" nederzettingen.

Steekproef van het huidige onderzoek

De steekproef van dit onderzoek bestond uit 62 moeders met een laag inkomen enhun kinderen van 24 - 60 maanden (2-6 jaar) van wie 71% in een stedelijke sloppenwijk woonde en 29% in een landelijke sloppenwijk in het gouvernement Taiz, in het zuidWesten van de Republiek van Jemen. Deelnemers werden geworven via een lokale NGO die ernaar streeft sociale rechtvaardigheid te bereiken door projecten die gelijke

kansen op werk creëren, de werkloosheid verminderen en de levensomstandigheden van de armen verbeteren. De NGO werd geselecteerd op basis van het feit dat deze organisatie al in de geselecteerde sloppenwijken werkte. Het hoofd van de NGO heeft data verzameld voor deze studie als onderdeel van het huidige werk van de NGO in de sloppenwijken. Dit betekende ook dat zodra de NGO besloot om haar eigen veldwerk te beëindigen om veiligheidsredenen in verband met de huidige oorlog in Jemen, ook de dataverzameling voor dit onderzoek werd beëindigd. Na het verzamelen van gegevens van 62 families, besloot de NGO haar primaire activiteiten om veiligheidsredenen te beëindigen en daarmee ook het verzamelen van onderzoeksdata.

Observatie van sensitiviteit van moeders

In deze studie werd de niet-Westerse micro-context van het gezin onderzocht waarbij moeders en hun kinderen werden geobserveerd met behulp van een veelgebruikte Westerse video-observatiemethode. In die context werden volledig gesluierde moeders gefilmd en geobserveerd tijdens hun interactie met hun kinderen in een naturalistische setting. In Hoofdstuk 3 hebben we geconstateerd dat deze op het Westen gebaseerde video-observatie van sensitiviteit een bruikbare methode was in de niet-Westerse Arabische moslimcultuur, hoewel we enkele uitdagingen tegenkwamen. De sensitiviteitsscores van moeders vertoonden aanzienlijke variatie en waren onafhankelijk van variabelen die door de videoprocedure zouden kunnen worden beïnvloed. Uit de resultaten bleek dat 58% van de moeders overwegend insensitief gedrag vertoonde, wat in overeenstemming is met de literatuur over opvoedingsstijlen in traditionele landen zoals Jemen die doorgaans autoritair zijn (Dwairy, 2006), en in overeenstemming is met resultaten verkregen in arme Westerse populaties (Mesman, van IJzendoorn, & Bakermans-Kranenburg, 2012).

Bovendien bleek, net als in de Westerse literatuur, de sensitiviteit van de moeder positief gerelateerd aan het opleidingniveau van de moeder, sociale ondersteuning er varen door de moeder, en negatief gerelateerd aan partnerconflicten, zoals aangetoond in Hoofdstukken 3 en 4. Moeders met meer opleiding, meer sociale ondersteuning en minder partnerconflicten waren sensitiever dan moeders met lagere opleidingsniveaus en sociale ondersteuning, en meer partnerconflicten. In de meeste Westerse literatuur zijn opleidingsniveau en intelligentie sterk gecorreleerd, dus is het moeilijk om de bevindingen van het verband met sensitiviteit te interpreteren. In de Jemenitische context zijn

intelligente moeders niet noodzakelijkerwijs goed opgeleid, en omdat ze geen toegang hebbentot onderwijs, kunnen ze ondanks hun algemene intellectuele vaardigheden zelfs analfabeet zijn. In tegenstelling tot de beschikbare literatuur, die gebaseerd is op Westerse steekproeven, konden we in deze studie dus de onafhankelijke rollen van opleiding en intelligentie bestuderen bij het voorspellen van de sensitiviteit van de moeder. Onze resultaten toonden aan dat het opleidingsniveau van de moeder, en niet de intelligentie van de moeder, haar sensitiviteit in de opvoeding voorspelde. Onze resultaten lieten dus zien dat opleidingsniveau en intelligentie van de moeder verschillende variabelen weerspiegelen, waarbij opleiding – en niet intelligentie - de drijvende factor is in de associatie met sensitiviteit van de moeder. Het lijkt erop dat scholing van moeders hen helpt om sensitief te reageren op hun kind, mogelijk door betere probleemoplossende vaardigheden, door meer kennis die moeders kan helpen bij hun opvoeding, of - zoals we in Hoofdstuk 4 hebben aangetoond - een verminderd risico op partner conflict. Toekomstige studies binnen de Jemenitische context zouden de mechanismen van de effecten van opleiding op de opvoeding moeten bestuderen en de causale rol van opleidingsniveau moeten testen bij het voorspellen van de sensitiviteit om meer kennis over die twee constructen te krijgen. Ook zou onderzocht moeten worden of deze resultaten specifiek zijn voor de Jemenitische context of kunnen worden gegeneraliseerd naar andere ontwikkelingslanden.

Ouderlijke discipline en religiositeit

In Hoofdstuk 5 hebben we specifiek de mogelijke rol onderzocht van religiositeit van moeders bij hardhandig opvoeden en gedragsproblemen van kinderen in sloppenwijken in Jemen. Religie - dat wordt beschouwd als een centraal aspect van cultuur (Decety, 2015) - werd onderzocht als een culturele factor die de associatie tussen hardhandig opvoeden en gedragsproblemen van kinderen zou kunnen beïnvloeden. De bevindingen toonden een modererend effect van moederlijke religiositeit in de associatie tussen een hardhandige opvoeding en gedragsproblemen bij kinderen. Bij kinderen van wie de moeder een hogere mate van religiositeit vertoonde, was hardhandige straf sterker gerelateerd aan gedragsproblemen dan bij kinderen van wie de moeder een lagere mate van religiositeit vertoonde. Deze bevinding draagt op unieke wijze bij aan de literatuur over religie in relatie tot opvoeding, die zich tot nu toe vooral heeft gericht op joods-christeli jke religies (Mahoney, et al., 2008; Mahoney, 2010), door inzicht te

geven in de rol van religie en hoe deze ouder-kind interacties kan vormen in een Islamitische context. Deze studie heeft ook bijgedragen aan de literatuur door te benadrukken dat het verband tussen opvoeding en de ontwikkeling van kinderen afhankelijk is van contextuele factoren. Deze resultaten impliceren dat cultuur een sleutelrol kan spelen in de kind-ouderrelatie. Voor toekomstige studies over de Islamitische cultuur en opvoeding kan men onderzoek naar de causale rol van positieve aspecten van de religieuze opvoeding en testen hoe dat een rol speelt in hardhandig opvoeden. Dit kan worden gedaan door moeders voor te lichten over opvoedingspraktijken met behulp van positieve opvoedingsvaardigheden die voortkomen uit religieuze lessen die warmte, steun en zorg voor kinderen benadrukken en onderzoeken of hardhandige opvoedingspraktijken hierdoor zouden afnemen.

Uitdagingen

Toekomstig onderzoek kan voortbouwen op de resultaten die in dit proefschrift zijn beschreven, maar kan ook ingaan op enkele beperkingen van dit onderzoek. Het toepassen van Westerse opvoedingsmaatregelen zoals de video-observatiemethoden is nog nooit eerder gedaan in een gesluierde cultuur die restrictief is voor vrouwen en waar het filmen van vrouwen taboe is. De omgeving in de sloppenwijken in Jemen wordt gekenmerkt door beperkingen voor het gebruik van video-observatie vanwege de gesluierde cultuur waar vrouwen het grootste deel van hun tijd thuis doorbrengen, en er vaak bezwaar tegen hebben gefotografeerd of gefilmd te worden, zelfs wanneer ze gesluierd zijn. Omdat moeders in Jemen het grootste deel van hun dagelijks leven thuis doorbrengen, vond de video-observatie thuis plaats. Dit had veel implicaties voor de observatie van sommige moeders en hun kinderen. Hoewel de sluier de moeders comfortabeler voor de camera zou moeten laten voelen, vertoonden sommige moeders nog steeds gedrag dat aangaf dat ze zich niet op hun gemak voelden tijdens het filmen. Voor toekomstige studies kan naturalistische observatie worden toegepast door de filmtijd te verlengen, waardoor moeders aan de camera kunnen wennen en de aanwezigheid ervan mogelijk zouden vergeten.

Een andere uitdaging van de observatiemethode was het aantal mensen dat aanwezig was tijdens het filmen. De aanwezigen waren niet alleen familieleden (d.w.z. andere kinderen van de moeder, haar echtgenoot, familieleden) maar ook nieuwsgierige buren en kennissen die voor het eerst in de buurt kwamen van een videocamera. Dit

zorgde echter bij sommige moeders voor wat ongemakkelijkheid, omdat ze niet alleen door de videocamera werden geobserveerd, maar ook door andere aanwezigen die achter de camera stonden. Als oplossing voor toekomstige studies kan de timing van het filmen worden gewijzigd naar de avonden wanneer er meestal geen bezoekers zijn. Een andere optie is om de filmtijd te verlengen zodat er vanzelf ook momenten zijn waarop er geen bezoekers zijn en er meer één-op-één-moeder-kind interactie geobserveerd kan worden.

Een laatste uitdaging van de observatietaken was de aard van de taken. Moeders werden geobserveerd tijdens twee verschillende video-observatietaken. De ene was een min-of-meer naturalistische observatie om de sensitiviteit van de moeder te meten, en de andere was de 'afblijftaak' om de disciplineringsstrategieën (waaronder hardhandige strategieën) van de moeder te meten. In de naturalistische observatietaak werd aan moeders gevraagd om te doen wat ze normaal met hun kinderen zouden doen. Jemenitische kinderen spelen echter meestal buitenshuis op straat. Moeders brengen thuis weinig tijd door met hun kinderen, zoals spelen, praten of gewoon in elkaars gezelschap zijn. De observatietaak creëerde dus een uitdaging voor sommige moeders, omdat ze vaak niet begrepen wat voor soort activiteit ze moesten doen. Voor toekomstige studies zou meer pilot-onderzoek binnen de sloppenwijkgemeenschap nuttig zijn om erachter te komen wat voor soort activiteiten moeders wél met hun kinderen doen. Dit kan eenvoudig worden gedaan door een vrouwelijke onderzoeker te hebben die vóór de dataverzameling ijd doorbrengt met moeders, om een beter beeld te krijgen van dagelijkse moeder-kind bezigheden.

De andere observatietaak was de afblijftaak, die gericht was op het meten van de (hardhandige) disciplineringsstrategieën van moeders. Ondanks grote inspanningen van het onderzoeksteam om speelgoed te selecteren dat binnen de sloppenwijkcontext past, vormde het speelgoed een uitdaging voor zowel kinderen als moeders, omdat ze misschien te aantrekkelijk en/of volledig onbekend voor hen waren. Dit leidde ertoe dat sommige moeders zelf het speelgoed verkenden en ermee speelden terwijl hun kinderen gefrustreerd toekeken. Voor toekomstige studies kan de afblijftaak worden aangepast om beter aan te sluiten bij de culturele context. Dit kan worden gedaan door moeders te vragen te iets te kiezen dat ze thuis al hebben en dat de kinderen leuk vinden, maar meestal niet mogen aanraken (zoals een mobiele telefoon, hulpmiddelen die in de keuken worden gebruikt, of voor naaien, enz.) en dat object te gebruiken voor de afblijftaak.

Conclusie

Dit proefschrift toont de toepasbaarheid en enkele uitdagingen van video-observatie van opvoeding in de niet-Westerse Arabische Islamitische sloppenwijkcontext in Jemen. Voor zover wij weten, is dit de eerste poging om opvoeding te bestuderen met behulp van video-observatie in een gesluierde cultuur. Bovendien hebben de studies in dit proefschrift een aantal betekenisvolle resultaten opgeleverd over factoren die een belangrijke rol spelen bij de ontwikkeling van kinderen, zoals sensitiviteit, opleiding, religiositeit, hardhandig opvoeden van moeders en de door hen ervaren partnerconflicten. Hoewel de resultaten van dit proefschrift veel meer vragen oproepen, zijn de studies eerste stappen in de richting van meer kennis over opvoeding en ontwikkeling van kinderen "buiten de gebaande paden". We hopen met deze waardevolle resultaten dat dit proefschrift de deur opent voor toekomstig onderzoek met behulp van naturalistische video-observatiemethoden die kunnen helpen om onze kennis over opvoeding en ontwikkeling in die context in het algemeen te vergroten, en om bij te kunnen dragen aan opvoedingsondersteuning en de optimale ontwikkeling van kinderen in Jemen in het bijzonder.

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Curriculum Vita

Khadija Alsarhi was born on November 29th 1973 in Sanaá, Yemen. Khadija obtained her bachelor degree from the English language department at Sanaá University. In 2000 Khadija was granted the UK government's Chevening international award to complete her master degree in Adult Education, Literacy and Community-based Development at Manchester University. Afterwards, Khadija worked as a project manager for educational and training projects working with children. In 2004, Khadija received the Humphrey mid-career development scholarship at MIT on coaching and training. From 2005 until 2008, Khadija worked for the British Council as their youth and science regional project manager, and later as the Assistant Director for the British council office in Yemen. Between 2008 and 2015 Khadija worked as a freelance consultant for projects that worked with women and children in Yemen, the Middle East and North Africa. In 2015 Khadija received a PhD scholarship from the ministry of foreign Affairs: the Netherlands Fellowship Program (NFP) to conduct research on maternal parenting in slums in Yemen at the Center for Child and Family Studies of Leiden University. This dissertation presents the results of her research project.

Publications

Alsarhi, K., Prevoo, M.J.L., Alink, L.R.A,& Mesman, J. (2019). Maternal Harsh Physical Parenting and Behavioral Problems in Children in Religious Families in Yemen. International *journal of environmental research and public health, 16(9), 1485.*

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