

## **Abstract**

The role of fathers among refugee and disadvantaged families in low and middle-income countries (LMICs) remains poorly understood. This study has sought to examine the associations between mothers' perceptions of their husband's involvement (hereafter referred to as paternal involvement), and her perceptions of her own parenting, distress, and well-being, as well as observed mother-child interactions in families living in disadvantaged communities and humanitarian settings. We analyzed baseline data from 104 mother-child dyads who participated in a randomized controlled trial aimed at evaluating the impact of the Mother-Child Education Program in Beirut, Lebanon. Mothers self-reported their distress, well-being, parenting (i.e., harsh discipline and parenting stress), and paternal involvement at home and in the community. Mother-child pairs were videotaped while completing a puzzle together and dyadic interactions were coded. Correlation analysis showed that higher perceptions of paternal involvement were associated with more positive affect displayed by the child, more positive regard for the child, and better mother-child synchrony during the dyadic interactions. Path analysis showed that paternal involvement was significantly associated with maternal well-being and distress. In turn, higher levels of maternal distress, were associated with higher levels of harsh discipline and more perceived parenting stress. The findings illustrate that paternal involvement may impact markers of maternal mental health and positive mother-child interactions among families living in disadvantaged communities or humanitarian settings. Paternal involvement should be considered when designing and implementing parenting programs in LMICs.

*Keywords:* Caregiver; Mental health; Well-being; Mother-child relationships; Harsh discipline

## Introduction

Humanitarian crises, poverty, and exposure to war, violence, and trauma place children and families at heightened risk of suffering from physical, behavioral or emotional problems (Vossoughi, Jackson, Gusler, & Stone, 2016). Thus, there is an urgent need to identify factors that may promote the opportunities for the healthy development of children living in disadvantaged communities and refugee settings. Children who are displaced due to conflict, disasters, and other crises, are particularly vulnerable to direct trauma exposure and stressors, hazardous living conditions, unsafe environments, challenges in meeting basic survival needs (e.g., access to food, water, shelter, health care), and social isolation (e.g., Silove, Ventevogel, & Rees, 2017; Vossoughi et al., 2016). Not unique to displaced children and families, recent theoretical models postulate that these adverse experiences lead to toxic stress exposure—defined as frequent or sustained activation of the biological stress system without necessary buffering factors or regulatory influences—which negatively impacts a child’s brain, stress response system, and behavior (Shonkoff et al., 2012).

Therefore, appropriate family or environmental supports are necessary for mitigating the impact of toxic stress on child outcomes (McEwen & McEwen, 2017). Specifically, improvements in parents’ mental health and parenting-related stress have been linked to improved children’s developmental outcomes in light of adverse experiences (Tol, Song, & Jordans, 2013), particularly among families living in conflict and refugee settings (Panter-Brick, Grimon, & Eggerman, 2014). Despite our knowledge of the benefits of positive parenting for child health and development, there are numerous challenges to parenting in situations of poverty and displacement. Most of the pertinent research has been conducted with maternal caregivers and their children (Britto et al., 2017; Pruett, Pruett, Cowan, & Cowan, 2017). Yet, there is

evidence that paternal involvement in childrearing may serve as an important resource for families (Lamb & Lewis, 2013). However, there is a noticeable gap in the literature with regard to the role of fathers, both in the United States and globally (Sethna et al., 2017).

One noticeable exception is a study from Vietnam that demonstrated that fathers can be taught to interact more sensitively, responsively, and effectively with their newborn infants, and that these positive interactions promote children's motor, language, personal, and social development (Rempel, Rempel, Khuc, & Vui, 2017). Furthermore, a population-based survey of 2,797 households in the greater Beirut area of Lebanon (including Burj Barajneh, one of the refugee camps in which the current study was conducted) found that the husband's involvement in housework was negatively associated with their wives' psychological distress, marital dissatisfaction, and overall unhappiness (Khawaja & Habib, 2007). Yet, there is substantial variability in the way in which paternal involvement is conceptualized (Barker, Iles, & Ramchandani, 2017). Much of the early research embraced Lamb and colleagues' (e.g., Lamb, Pleck, Charnov, & Levine, 1985) influential model of the multidimensional nature of paternal involvement encompassing engagement, availability, and responsibility. Recent theoretical models (e.g., Pleck, 2012) expanded upon these dimensions to further outline responsibility as indirect care and process responsibility (i.e., ensuring that family tasks are done and family norms are followed). These models are crucial as they outline the ways in which fathering may influence child development as well as the quality of the family relationships. In fact, paternal involvement has been hypothesized as a potential modifier of the effect of parental psychopathology on child psychological adjustment via impaired parenting and maternal psychological health (Barker et al., 2017; Pleck, 2012).

In the present study, we operationally defined paternal involvement as engagement and practices with the child, the mother, and in the community. While theoretical models explicitly discuss father-child interactions (and paternal involvement at home more broadly), paternal involvement in the community is a crucial factor among refugee and disadvantaged families for several reasons. First, among individuals who have been forcibly displaced and exposed to war and armed conflict, the loss of social support networks may impact family functioning, parental well-being, and mental health (Miller & Rasmussen, 2017). Thus, a sense of self- and community-efficacy and connectedness are crucial components to prevent the potential loss of social and community resources during human-made disasters (Trickett, 2009).

In fact, it has been found that services connecting refugees with each other and with the broader community around them may foster community support, decrease psychological distress, and promote access to resources and employment (Goodkind, 2006; Goodkind et al., 2014). A recent study of displaced Syrians in Lebanon has shown that self-settled Syrians have capitalized on social networks (e.g., by evaluating community opportunities and resources available to them) to create a new livelihood system for themselves, which serves as a way to cope with experiences of displacement (Thorleifsson, 2016). Hence, identifying resources that were previously utilized but which have been disrupted or become unavailable due to displacement (e.g., religious leaders) is an important component of working with war-affected populations (Miller, Kulkarni, & Kushner, 2006). Furthermore, among Arab nuclear families in Lebanon, the spousal relations and family dynamics are largely influenced by cultural and religious communities, as well as neighbors and extended communities (Haj-Yahia, 2000). Thus, in addition to a husband's support for his wife during activities of daily living and his involvement

in childrearing, paternal involvement in the community may assist the entire family in coping with post-migration challenges and other stressors.

Taken together, in times of instability and prolonged periods of toxic stress posed on the family system, fathers may provide a resource in health and adjustment for both children and mothers. Synthesized in a recent model of parenting in war, Murphy and colleagues (2017) proposed several factors exerting an influence on parenting and its links to child development as a result of displacement on the level of the partner (e.g., marital tensions), household (e.g., poverty, living environment, family composition), and the community (e.g., breakdown of support networks). Despite these theoretical assumptions, there is little empirical evidence on the role of the father among refugee and disadvantaged families in low and middle-income countries.

### **The present study**

We recently completed a randomized clinical trial (RCT) on the efficacy of the Mother-Child Education Program (MOCEP) with families in Beirut, Lebanon. One of the aims of the RCT study was to identify ways to reduce the risk factors for families who were already exposed to toxic stress (as defined above). The RCT was conducted with groups of mothers and their children. However, there is emerging evidence that paternal involvement may serve as a resource to modify existing risk factors and prevent (further) destabilization among families exposed to developmental risks. Thus, the objective of the present study was to examine the associations between mothers' self-reports of their perception of their husband's involvement, maternal parenting (i.e., harsh discipline and parenting stress), maternal distress, maternal well-being, and contextual factors (i.e., satisfaction of basic needs, social support) in families residing in disadvantaged communities and families affected by conflict, violence, and/or displacement.

Given the known association between positive mother-child interactions (e.g., better mother-child synchrony, that is, reciprocity, turn-taking, and shared affect; Leclere et al., 2014) and child development, we also analyzed associations between paternal involvement and several indicators of mother-child interactions during a videotaped dyadic task. We hypothesized fathers to function as a source of psychosocial support in meeting the psychological needs of both the mother and the child. Specifically, we expected to find positive associations between paternal involvement and indicators of the mother-child interaction (see Methods) and maternal well-being, as well as negative associations with maternal distress (Fletcher, 2009). In turn, we expected that mothers who reported higher levels of well-being and lower levels of distress would report lower levels of parenting stress and harsh discipline (Jansen et al., 2012).

The loss of social support networks is considered a major displacement-related stressor that may negatively affect mental health among families affected by forced displacement (Miller & Rasmussen, 2017). Expectedly, social support has been associated with lower levels of anxiety, depression, and PTSD symptoms among resettled refugees in Australia (Schweitzer, Melville, Steel, & Lacherez, 2006) and refugees and asylum seekers in the Netherlands (Gerritsen et al., 2006). Thus, we expected social support to be negatively associated with maternal distress and positive associated with maternal well-being.

Moreover, food insecurity has been linked to poor mental health (self-reported using the five-item Mental Health Inventory) in a representative sample of Palestinian refugee households in Lebanon (Ghattas, Sassine, Seyfert, Nord, & Sahyoun, 2015). Using the same dataset, Habib and colleagues (Habib, Hojeij, Elzein, Chaaban, & Seyfert, 2014) found that adults in crowded households (calculated by dividing the number of people in a home by the number of rooms, excluding the balcony, kitchen and restrooms; above the median of 1.69 people per room was

determined as crowded) were more likely to report poor health outcomes (including mental health, chronic and acute illnesses and disability) compared to homes without crowding. Furthermore, in a study with over 3,000 adults from the Gaza Strip (Ziadni et al., 2011), perceptions of human insecurity (e.g., threats to personal safety, fear about their future and the future of their families) have been associated with self-reported distress (e.g., individuals' fears of anxiety, incapacitation and displacement, and fears of losing control over important things in their lives). Based on these findings, we hypothesized that mothers' perceptions of their personal safety, food insecurity, and household crowding would be related to increased levels of distress and lower levels of well-being.

## **Method**

### **Sample**

The present study uses the baseline data from an RCT aimed at evaluating the impact of MOCEP on vulnerable populations in Beirut, Lebanon (ClinicalTrials.gov Identifier: NCT02402556). Participants were residents of three communities in Beirut, Lebanon: Bourj Al Barajni Camp, Chatila Camp, and Shiyyah. Both Bourj Al Barajni and Chatila are designated as refugee camps that have historically been home to Palestinian refugees. However, Chatila, in particular, has recently become the residence of a large population of refugees from Syria including some that are Palestinian in origin. Shiyyah, by contrast, is a low-income Lebanese neighborhood in Beirut. The directors of community and/or social service centers located within each community facilitated the recruitment process under the supervision of the MOCEP implementation coordinator. Eligibility criteria for participation in MOCEP are described in detail elsewhere (Authors, under review). Mother-child dyads were invited to participate in a

three-part baseline data collection procedure, in which mothers completed a series of questionnaires, children completed a series of age-appropriate activities, and dyads completed an interactive play session documented on videotape.

A total of 106 mothers participated in the RCT. Two mothers reported that there was no primary male figure. Data from these mothers were excluded from the analysis. Thus, baseline data from a total of 104 mother-child dyads were analyzed for the present study. About half (50.9%) of the participating children were male. The children were between 2.05 and 7.93 years old (mean age = 4.36 years). Mothers were between 20 and 53 years old ( $M = 32.44$  years;  $SD = 5.83$ ) and have lived in their current community between three months and 53 years ( $M = 19.56$  years,  $SD = 14.26$ ). A total of 71 mothers were either born in the camp or neighborhood in which the study was conducted, in another part of Beirut, or in another part of Lebanon; 33 mothers were born in another country (29 were born in Syria, and 4 in other Arab countries). Eighty-eight fathers (83% of the samples) were employed. Ninety-four mothers (88.7% of the sample) indicated that the father lived with the mother and the child. Supplemental Table 1 contains additional demographic information for the sample.

## Measures

**Maternal perception of paternal involvement.** Paternal involvement was conceptualized as the mother's perception of her husband's engagement and practices with the child, the mother, and the community. The Father Involvement Questionnaire (FIQ) has 20 items and was developed specifically for the RCT. The items were generated based on the outcomes of prior qualitative evaluations of MOCEP (Bekman & Koçak, 2010) and hypothesized markers of parental behavior that may influence family functioning. The FIQ includes nine items on the mothers' perceptions of how her husband interacts with their children (e.g., "enjoys spending



time with our children”; “is not too harsh when disciplining our children.”). In addition, six items pertain to the mother’s perceptions of how she is treated by her husband (e.g., “usually speaks to me in a respectful manner”). The remaining five items focus on paternal involvement with other members of the community (e.g., “enjoys spending time with other families”). All items are rated on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*) and were summed up to compute a total score of paternal involvement (Cronbach’s  $\alpha = .82$ ). Supplemental Table 2 contains the full version of the FIQ.

**Maternal distress.** Mothers self-reported their perceived individual distress using a 12-item rating scale (IDA) used in a previous study involving a representative sample of Palestinian households in the Gaza Strip (Ziadni et al., 2011). Mothers were asked to report the extent to which they are currently feeling a number of affects (e.g., frustrated, lonely, anxious) using a 4-point scale ranging from 1 (*not at all*) to 4 (*all the time*). A total score of individual distress was computed by averaging all items (Cronbach’s  $\alpha = .85$ ).

**Maternal well-being.** Mothers rated their overall well-being using the 5-item WHO-5 mental health index (Bech, Olsen, Kjoller, & Rasmussen, 2003). This brief screening assessment was developed by the World Health Organization (WHO) and is widely used in both academic and humanitarian settings. The WHO-5 asks participants to rate their subjective psychological well-being (e.g., positive mood, vitality) on a six-point scale (0 = *at no time* to 5 = *all of the time*) over the past two weeks. An example item reads: “I have felt cheerful and in good spirits.” The scale has been used in a study that examined the well-being of female family caretakers in two neighboring Israeli-occupied West Bank villages (Rabaia, de Jong, Abdullah, Giacaman, & van de Ven, 2018). A total score was computed by summing up all items (Cronbach’s  $\alpha = .84$ ).

**Harsh discipline.** The Disciplinary Style Questionnaire (DSQ; Huang et al., 2011) is an 18-item parent report measure of parental disciplinary style, which assesses the frequency with which parents engage in seven forms of discipline when dealing with children's undesirable behavior. The seven disciplinary domains include inductive discipline, physical punishment, manipulating privileges, harsh verbal discipline, argument, shaming, and ignoring. This factor structure of the DSQ has been confirmed across nine countries, including Jordan (Huang et al., 2011). Mothers filled out the DSQ. A total score of maternal harsh discipline was computed by averaging the harsh verbal discipline (3 items) and the physical punishment (3 items) scales (Cronbach's  $\alpha = .61$ ). Higher scores on this composite indicate a larger degree of harsh maternal discipline.

**Parenting stress.** The 36-item short form of the Parenting Stress Index (PSI-SF; Haskett, Ahern, Ward, & Allaire, 2006) was used to assess mothers' perceptions of parenting stress. The PSI-SF is a 36-item questionnaire designed to measure stress within the parent-child relationship. The PSI-SF consists of three subscales: Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child with each subscale comprising 12 items, to be rated on a five-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The option "not sure" was omitted. Scores were summed up across all 36 items to compute a total score of parenting stress (Cronbach's  $\alpha = .85$ ). Higher scores indicate greater levels of stress.

**Basic needs.** Three types of basic human needs were assessed. Mothers' perceptions of their personal safety and security, as well as that of their families, were assessed using a brief 10-item human security assessment (HSA; Ziadni et al., 2011). The questions take into account participants' culture and value systems when considering their standards of and concerns with regard to the safety of their surroundings. The food security of participating families was

assessed with eight items using the Arab Family Food Security scale (AFFS; Sahyoun et al., 2014) plus one supplemental question from the evaluation of the Healthy Kitchens, Healthy Children project currently underway in Beirut, Lebanon (Ghattas et al., 2015). The food security questionnaire was developed specifically for Arab communities in the Middle East and measures degrees of family-level food security in the previous year. Finally, crowding was measured by dividing the total number of people living in the household by the total number of rooms in the dwelling. Scores on the AFFS showed small positive correlations with the HSA ( $r = .25, p < .05$ ) and the household crowding index ( $r = .29, p < .01$ ). There was a small positive correlation between the HSA and the household crowding index ( $r = .27, p < .05$ ). A principal factor analysis using the three basic needs variables showed 27.57% of variance explained by a single factor. The factors loadings were .53, .50, and .55 for AFFS, HSA, and household crowding, respectively. The factor score was saved for further analysis using a least squares regression approach. Higher factor scores indicate higher levels of socioeconomic need.

**Social support.** The Duke Social Support Index, Short Form (DSSI-SF; Koenig et al., 1993), assesses social support in two domains: social interactions and subjective support. Recently, the abbreviated, 11-item version was used in the Healthy Kitchens, Health Children Project, a study in Beirut, Lebanon in which the participants were members of the Palestinian refugee community (Ghattas, Jamaluddine, Choufani, & Sahyoun, 2017). The first four items assess social interactions. One item asks the mother to indicate the number of persons in her area other than her family that she feels she can depend on or feels very close to (1 = *none* to 3 = *more than two people*). Three items require the mother to rate (a) how many times during the past week she spent time with someone who does not live with her, (b) how many times she talked to someone on the telephone, and (c) how often she attended meetings of clubs, religious

meetings, or other groups. The original answer scale for these three items ranged from 0 (*none*) to 7 (*7+ times*). As per the developers' guidelines, the answers for item (a) above were recoded to 1 = *none*, 2 = *one time or two times*, and 3 = *three or more times*. The answers for items (b) and (c) above were recoded to 1 = *none or one time*, 2 = *between two and five times*, and 3 = *six or more times*. The remaining seven items assess subjective support and were rated on a scale from 1 (*hardly ever*) to 3 (*most of the time*). Father support was not directly assessed using this scale; yet, the subjective support items asked the mother to rate the frequency of support received from her family more broadly, which includes her husband. A total score of social support was computed by summing up scores on the 11 items (Cronbach's  $\alpha = .72$ ).

**Dyadic (mother and child) interactions.** Mothers and children were provided a wooden puzzle and were asked to play together for 10 minutes. Prior to starting, mothers and children were told (in Arabic) that there were no right or wrong ways to use the puzzle and asked to play as they would at home. Interactions were videotaped by research assistants who remained in the room during the interaction. To reduce bias, mothers were made comfortable and instructed by the researchers to act naturally. Also, mothers who did not want to show their face to the video camera did not have to do so. Interactions were translated from Arabic to English and were subtitled for behavioral coding. Mothers were coded for maternal sensitivity, intrusiveness (for data analysis, this scale was reverse-coded to reflect unobtrusive behavior of the mother), positive regard, and disengagement during the interaction, following criteria established by Bernard, Meade, and Dozier (2013). Children were coded in terms of positive affect, negative affect, and persistence during the task, following criteria established by Matas, Arend, and Sroufe (1978). Dyadic synchrony was operationally defined as dyadically regulated affective exchanges and connectedness, according to criteria as in Harrist et al. (1994). High dyadic scores

were provided for high positive dyadic synchrony. Low scores were provided for disconnected and asynchronous interactions as well as mutual displays of negative affect between parent and child. All videos were double coded. Twenty-five percent of the videos were also triple coded by the lead trainer in cases to ensure consistency in coders ratings. With regard to inter-rater reliability, correlations between coders ranged from  $r = 0.85$  to  $0.92$ . A total of 92 families had baseline data from both the FIQ and the dyadic interactions.

### **Procedure**

Data collectors were female researchers from Lebanon experienced in direct assessments and survey methods, with a background in psychology. Assessors were trained in Beirut by two Yale researchers, and the protocol was piloted prior to rolling out the trial. Data used for the present study were collected over four weeks in each of the three sites over the course of three months. An average of three dyads were interviewed per day, followed by a dyadic interaction task. Each questionnaire took about 45 to 90 minutes to complete, followed by 15 minutes for recording of the dyadic interaction. Informed consent was appropriately obtained, and the study was approved by the Yale University's IRB.

### **Data analysis**

Data were analyzed in two steps. First, we analyzed descriptive statistics and zero-order correlations for the main study variables. Second, we fit a path model to the data to test for indirect effects of paternal involvement on maternal parenting stress, discipline, and dyadic interaction via maternal individual distress and well-being, respectively. Basic needs and social support were included as control variables to partially address the problem of potential mediator-outcome confounding. Direct and indirect effects were estimated in *Mplus* 7.4 (Muthén & Muthén, 2015) using full information maximum likelihood (FIML). FIML was also used to

handle missing data. Non-symmetric bootstrap (50,000 bootstrap draws) confidence intervals for indirect effects were computed because of the non-normal distribution of indirect effects due to the relatively small sample size. Individual distress and maternal well-being were tested as parallel mediators.

## **Results**

### **Associations between paternal involvement and maternal well-being and parenting**

Table 1 presents descriptive statistics and correlations. The mother's perception of her husband's involvement showed small negative, statistically non-significant correlations with maternal parenting stress (PSI) and harsh discipline (DSQ). Moreover, more involvement of fathers was associated with lower levels of socioeconomic need. With regard to the proposed mediating variables, higher maternal perception of paternal involvement was related to lower levels of maternal distress (IDA) and higher levels of well-being (WHO-5). Maternal harsh discipline was positively related to perceived parenting stress. Data for individual variables were missing for 0 to 9 (8.7%) participants.

Figure 1 shows the path model testing the indirect effect of the father's involvement, as reported by his wife, on the mothers' harsh discipline, her level of stress in being a parent, and the dyadic interaction composite. This model yielded an acceptable fit to the data,  $\chi^2 (df = 9) = 11.95, p = .22, RMSEA = .056, CFI = .976, SRMR = .044$ . Standardized estimates showed that higher levels of paternal involvement were associated with less maternal distress and more well-being, controlling for basic needs and social support. Higher levels of socioeconomic needs, as measured with the extent to which families "basic needs" were met, were related to higher levels

of maternal distress but unrelated to maternal well-being. Higher levels of social support were weakly related to higher levels of maternal well-being but not to distress.

The indirect effect estimates showed a small, statistically significant overall indirect effect of paternal involvement on parenting stress via maternal distress and well-being ( $\beta = -.14$ ,  $p < .01$ ; 95%-CI = -0.24 to -0.04). The decomposition of the total indirect effect into specific indirect effects showed that the total indirect effect was mainly attributable to maternal distress ( $\beta = -.12$ ,  $p = .02$ ; 95%-CI = -0.23 to -0.03) but not well-being ( $\beta = -.02$ ,  $p = .63$ ; 95%-CI = -0.10 to 0.05). The overall indirect effect of paternal involvement on maternal harsh discipline was small and negative ( $\beta = -.11$ ,  $p = .01$ ; 95%-CI = -0.19 to -0.02). The decomposition of this indirect effect showed a stronger indirect effect via maternal distress ( $\beta = -.11$ ,  $p = .02$ ; 95%-CI = -0.22 to -0.03) compared to well-being ( $\beta = .01$ ,  $p = .90$ ; 95%-CI = -0.07 to 0.09).

### **Associations between paternal involvement and mother-child interactions**

Among the eight indicators of mother-child interactions obtained from the dyadic interaction task (Table 2), paternal involvement was positively associated with positive regard ( $r = .23$ ,  $p < .05$ ), synchrony ( $r = .29$ ,  $p < .01$ ), and the child's positive affect ( $r = .28$ ,  $p < .01$ ). Correlations between the indicators of mother-child interaction and mother's self-reported well-being and parenting were overall small and statistically non-significant. The only statistically significant correlation was between well-being (WHO-5) and the child's positive affect ( $r = .23$ ,  $p < .05$ ), indicating that children of mothers who reported higher levels of general well-being displayed more positive affect during the dyadic interaction task.

## **Discussion**

The findings of the present study indicate that fathers can provide an important source of support for mothers in resource-constrained communities affected by conflict, displacement, and marginalization. In this study, the mothers' perceptions of greater paternal involvement were significantly associated with a better sense of subjective psychological well-being and lower levels of personal distress. These findings resonate well with theoretical models emphasizing the importance of the partner in the relation between parental stress, psychological well-being, and parenting behaviors (Lamb et al., 1985; Murphy et al., 2017; Pleck, 2012). Interestingly, the mother's perception of paternal involvement was not directly associated with ratings of how frequently she used harsh discipline when dealing with her child's undesirable behavior. One possible explanation for this finding is the idea that paternal involvement is affected by maternal characteristics (i.e., "maternal gatekeeping") such as the reluctance to relinquish family responsibility by setting rigid standards, a desire to validate a maternal identity, and differentiated conceptions of family roles (Allen & Hawkins, 1999).

With regard to the observed mother-child interactions, we found that higher levels of mother's perception of paternal involvement were significantly related to more positive affect displayed by the child and better synchrony between the mother and her child during the interaction. Intriguingly, we also found that the child's positive affect during the interaction was positively related to mothers' well-being (WHO-5). Together, these findings echo the idea that better mother-child synchrony is associated with a healthy mother (Leclere et al., 2014) and that fathers may provide a source of support that affects positive interactions between the mother and her child.

The maternal ratings of perceived social support were only slightly related to perceptions of paternal involvement. This finding supports the notion that both constructs may function as



distinct sources to alleviate the stress she experiences in being a mother in under-resourced or at-risk circumstances. Together, these findings support the notion that maternal distress may mediate the association between maternal perceptions of paternal involvement and maternal parenting stress and maternal harsh discipline.

### **The cultural context for paternal involvement and family functioning in Lebanon**

Family is a fundamental social institution and central to the lives of people in Middle Eastern states (Beitin, Allen, & Bekheet, 2010; Dahlgren, 2008; Spellings, 2014). However, due to differences in factors such as the family's religious affiliation, place of residence, and national affiliation, it is difficult to pinpoint one model that typifies all Arab families (Haj-Yahia, 2000) and may allow the determination of normative relational patterns among refugee and disadvantaged families in Lebanon. Yet, it has been argued that the Lebanese family has evolved from an extended family structure with the male elder as the head of the family (i.e., patriarchal family) to a nuclear family structure (i.e., consisting of the parents and their dependent children) (Dahlgren, 2008; Kazarian, 2005). The nuclear family in Lebanon is horizontal in its interfamilial relationships, and interdependence (e.g., in the form of solidarity, cohesion, and the marital union) is considered a desirable attribute among its members (Kazarian, 2005; Spellings, 2014). Thus, paternal involvement in childrearing, the mother-child relationship, and in the community may be interpreted by the mother as a demonstration of sympathy as well as commitment to and bond with the family unit, which may positively affect her well-being. Conversely, low levels of paternal involvement conflicts with the cultural expectation of the husband to assume responsibility for the protection of the family and to provide economic welfare (e.g., by being more involved in the community to secure employment), thus negatively impacting the stability and well-being of the family unit (Joseph, 2004; Spellings, 2014).

Although we did not explore factors contributing to paternal involvement, it has been shown that times of economic strains and hardship increase the additional burden for Arab women to participate in the formal labor market (El Saadawi, 2007) and challenge the traditional role expectation of the husband as provider for the family. Moreover, economic strains may impact the husband's standing in the community and the family, including loss of status and authority (Dahlgren, 2008; Eggerman & Panter-Brick, 2010). Recent research from high-income countries indicates that there has been a convergence of men and women's roles in the household, particularly in terms of family work including childcare (McGill, 2014). Thus, the increased burden on behalf of the women with the least supportive spouses may also relate to higher distress and poorer subjective psychological well-being. Further research is needed to investigate sources of differences in paternal involvement among families living in poverty and in humanitarian settings.

Conflict and war are disruptive and harmful for families (Murphy et al., 2017). Yet, growing up affected by conflict may elicit collaboration among women in refugee camps (Zaatari, 2006). For example, after the Lebanese civil war, Joseph (2004) observed the paradoxical situation that Lebanese women and youth were in some ways empowered during the war by this greater need for family in the absence of public institutions that could protect a person's security and, thus, their well-being. Thus, in these contexts, increased paternal involvement may compensate for the harmful effects of the loss of social support networks (Miller & Rasmussen, 2017) and may promote access to resources that could decrease psychological distress among the families. Taken together, the findings from the present study support that mothers' perception of paternal involvement were associated with improved self-

reported well-being and mental health, as well as observations of mother-child interactions among families living in poverty or humanitarian settings.

### **Limitations**

The cross-sectional design of this study along with the modest sample size hinder causal inferences and generalizability of the findings. Future studies need to include the father's personal assessment of their involvement with their children, wives, and communities before and after any interventions. Ideally, this would include collecting both quantitative and qualitative data. This is especially important as some of the father's behaviors may be unknown to the mother (e.g., the extent to which the father spends time with other fathers in the community, or the extent to which he enjoys spending time with other families). Thus, it is crucial for future studies to include the father's own ratings of their involvement as well as the ratings of their children, as they may emphasize dimensions from a different perspective when asked to report on their father's involvement (Hawkins & Palkovitz, 1999). It will be especially interesting to see how well-aligned the mothers' perceptions of her husband's role in the family are with the father's own perceptions as well as the perceptions of the child. However, it is important to consider aspects related to maternal gatekeeping when attempting to assess the father's perceived involvement, as studies have found that the mother's beliefs about the role of the father regulates the relationship between the father's perceived role and actual levels of involvement (McBride et al., 2005).

Furthermore, the presence of a researcher during the mother-child interaction may hinder naturalistic behaviors of the mother and the child, which might explain low ratings of maternal disengagement and intrusiveness. Moreover, we cannot rule out the possibility of bias due to administering questionnaires prior to observing the mother-child interactions. There is also a

clear need to assess the psychometric properties of the FIQ and other relevant assessment tools with larger samples. The sample size was not sufficient to conduct a factor analysis of the FIQ. Consequently, it was not possible to sufficiently disentangle the differential effects of paternal involvement with their wife, the child, and the community on maternal well-being and parenting.

More research is also needed on the validation of the measures among disadvantaged and refugee families in Lebanon. For instance, there may be distinct profiles of psychological distress that may be more susceptible to qualities of the mother-father relationship than others. Finally, future research should expand on the model presented here by examining the impact of paternal involvement on child developmental outcomes via maternal well-being and parenting behavior.

### **Future directions and conclusion**

Some of the most promising findings across studies examining the effects of parenting interventions in LMICs are reduced use of dysfunctional parenting practices, decreased parental stress, increased maternal well-being, and increased awareness of positive parenting strategies and appropriate disciplinary techniques (Jordans, Tol, Ndayisaba, & Komproe, 2013; Singla, Kumbakumba, & Aboud, 2015). Here, we identified paternal involvement as an important (indirect) correlate of mother's perceived parenting stress that should be considered when designing and implementing early childhood parenting programs. There is evidence that paternal involvement can be promoted. For instance, Pruett, Pruett, Cowan, and Cowan (2017) examined the effectiveness of the Supporting Father Involvement (SFI) intervention in an RCT, a 16-week couple-focused paternal involvement intervention for low-income families in five California counties. The authors found that parents who participated in a couples group reported that fathers spent more time with the child. Couples also reported reductions in parenting stress, and less use of violent problem solving in the family. Additional culturally-sensitive research is needed to

explore the feasibility for implementing such co-parenting and couple relationship programs with mothers and fathers in humanitarian settings.

In our RCT with families in Beirut, Lebanon, we found that mothers' participation in MOCEP did not improve their perceptions of her husband's involvement as measured with the FIQ (Authors, under review). Fathers are generally understudied in these programs and should be more purposefully included in the design, delivery, as well as process and impact evaluation of such programs (Panter-Brick, Burgess, et al., 2014). However, there may be important personal, familial, and societal barriers to address in order for men to become more involved in child rearing in general, and in (co-) parenting programs in particular (Pruett et al., 2017).

Given these complex and oftentimes intertwined factors, how can we support fathers in navigating these issues so that they can be more involved with their families? We interviewed 13 fathers after their wives and children had participated in MOCEP. One basic obstacle that some fathers pointed out is their lack of availability due to work schedules. Non-traditional means of recruitment and outreach may be necessary to reach fathers who are least likely to be involved. Anecdotal comments from fathers in refugee settings revealed various unique concerns and worries that may prevent fathers from being maximally involved with their family. Common stressors are a feeling of powerlessness due to underemployment and lack of ability to provide for one's family. Perceived isolation and discrimination from the larger community may also highly affect the fathers' well-being. Together, these extreme stressors may affect fathers' well-being more generally, which can compromise their levels of involvement. These anecdotal observations may reveal key issues that need to be targeted in any program that attempts to enhance paternal involvement in disadvantaged communities and humanitarian settings. Moreover, we know little about father's desires, perceptions toward parenting and their

motivations to engage with the community and the family in disadvantaged communities and humanitarian settings. For example, some of the fathers have lived in these communities for their entire life and have ample knowledge of approaches that have failed and succeeded in the past. More monitoring of paternal involvement with their families and their communities is required, as are independent impact evaluations of programs that seek to improve circumstances for involved fathering.

In conclusion, we would like to offer two calls to action. First, research, monitoring, and evaluation in humanitarian settings should pay greater attention to co-developing robust, context-specific, and time-specific tools that capture paternal involvement together with families living in these areas. Second, after such tools have been developed and tested, there should be targeted efforts to translate the knowledge gained into data-driven decision-making, capacity building, and actionable recommendations for practitioners. The translation of such knowledge should occur in collaboration with the target beneficiaries: families growing up in poverty and humanitarian crises.

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Table 1

*Descriptive statistics and correlations for maternal self-reports*

Baseline ratings	1.	2.	3.	4.	5.	6.	7.
Maternal perception of paternal involvement		-.24*	.09	-.40***	.40***	-.20	-.11
Basic needs			-.42***	.49***	-.20**	.25*	.31*
Social support				-.28**	.27**	-.12	-.32*
Maternal distress					-.51***	.41***	.44**
Maternal well-being						-.22*	-.29*
Maternal harsh discipline							.54*
Maternal parenting stress							
<i>Mean</i>	52.69	0	23.21	2.35	8.49	7.40	109.0
<i>SD</i>	5.29	0.74	4.18	0.58	6.33	2.47	15.0
Missing ( <i>n</i> , %)	2, 1.9	4, 3.9	0	9, 8.7	0	5, 4.8	0

*Notes.*  $N = 104$ . Higher scores on the basic needs composite indicate higher socioeconomic needs. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

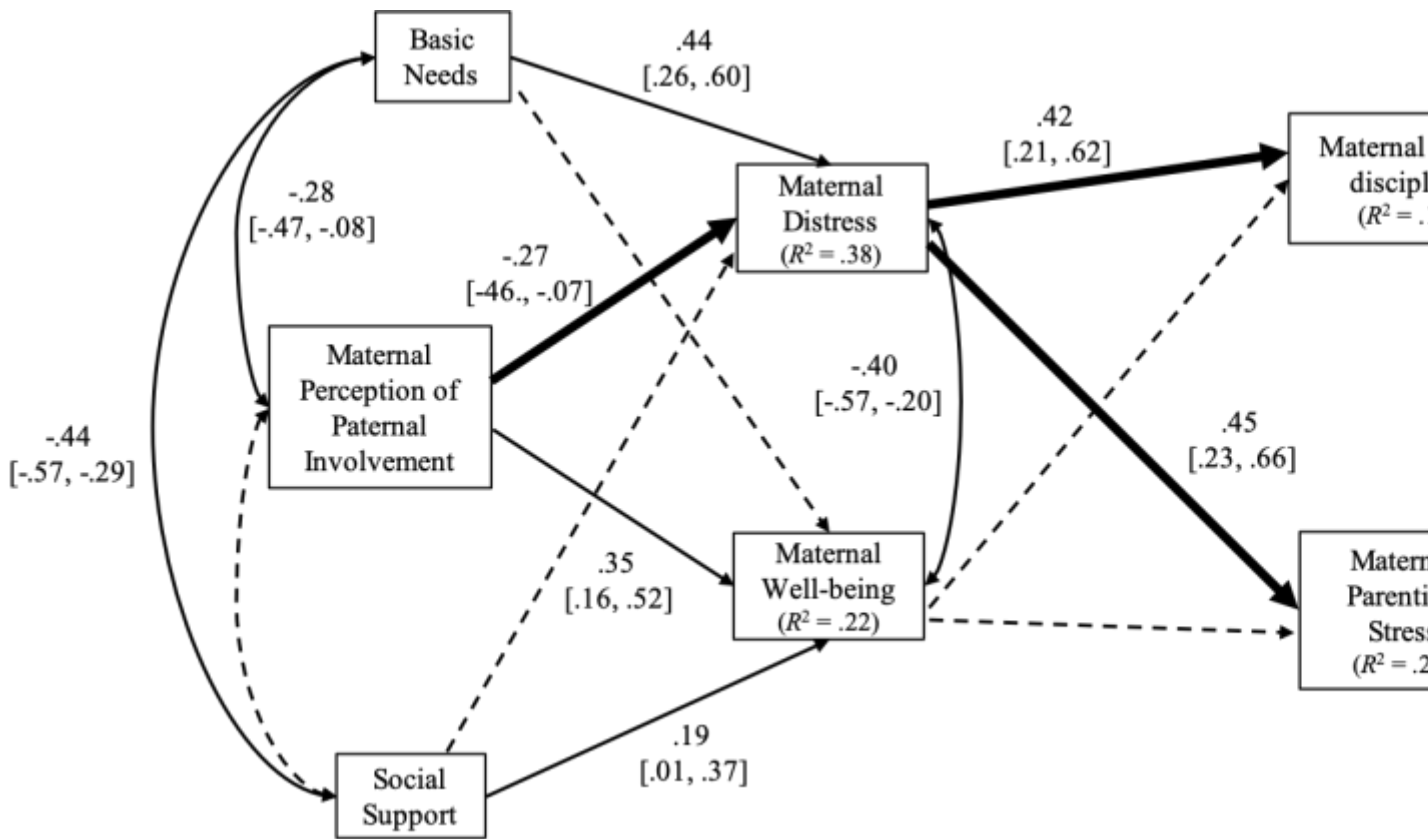
Table 2

*Descriptive statistics and correlations for indicators of mother-child interactions*

Variable	<i>M (SD)</i>	Correlations				
		Paternal Involvement	Maternal Distress	Maternal Well-Being	Maternal Parenting Stress	Maternal Harsh Discipline
Responsivity	2.94 (1.01)	.20	-.03	.14	-.04	.09
Intrusive behavior	3.79 (1.12)	.17	-.05	.11	-.02	.02
Engagement	1.09 (0.48)	-.18	.12	-.09	-.04	-.04
Positive Regard	2.95 (1.03)	.23*	-.01	.11	-.10	.00
Asynchrony	2.92 (1.09)	.29**	-.06	.18	-.03	.03
Child Negative Affect	1.60 (0.80)	-.14	-.16	-.13	-.02	-.04
Child Non-Compliance	1.21 (0.62)	-.09	-.00	-.20	.14	.06
Child Positive Affect	2.86 (0.93)	.28**	.10	.23*	-.03	-.08

*Notes.*  $N = 92$  (data from 12 mother-child dyads were missing). The range of possible scores on all variables is 1-5. \* $p < .05$ . \*\* $p < .01$ .





*Figure 1.* Path model testing the indirect effect of paternal involvement, as reported by the mothers, on her harsh discipline (a composite score of harsh verbal discipline and physical punishment), her level of parenting stress, and maternal behavior during the dyadic interaction (a composite of maternal sensitivity, unobtrusive behavior, and positive regard). Standardized estimates are reported with 95% confidence intervals in parentheses. Dotted paths indicate statistically non-significant paths. The thick lines indicate the indirect effects from paternal involvement to maternal harsh discipline and the mother's perceived parenting stress via maternal distress that were significant at the 0.05 level. Higher scores on the basic needs variable indicate higher socioeconomic need.