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Intragroup contact with other mothers living in the same neighborhood benefits mothers' life satisfaction: The mediating role of group identification and social support

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Intragroup contact with other mothers living in the same neighborhood benefits mothers' life satisfaction: The mediating role of group identification and social support

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Abstract

Becoming a mother is often accompanied by a loss of social connections, which can reduce the availability of social support. This can increase maternal stress with negative health outcomes. Therefore, we examined how mothers' social contact with other mothers living in the same neighborhood can form a compensative source of social support and wellbeing.

Data was collected from mothers (N = 443) of a child under school age while visiting the public maternity and child health clinics located in two neighborhoods in Helsinki, Finland.

We found that mothers' frequent and positive contact with other local mothers was positively related with their life satisfaction through identification-based social support. Contact also had a specific indirect effect on life satisfaction through social support.

Frequent positive contact with other local mothers can serve to scaffold the emergence of social identification, which in turn unlocks further social support with positive health effects.

Keywords: frequent and positive contact, group identification, social support, life satisfaction, mothers, neighborhood, serial mediation

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1 INTRODUCTION

Research has often focused on the negative effects that disadvantaged neighborhoods can have on their residents' health and wellbeing (Visser et al., 2021). While the research has provided evidence for the negative health effects, neighborhoods and particularly social connectedness in them also has great potential for residents' health and wellbeing (Bekalu et al., 2020; Carbone & Clift, 2021; Kim & Ross, 2009; Zhang et al., 2015). In this study, we focus on a specific group of neighborhood residents, namely mothers with young children. Mothers' daily life with young children is often located close to home in residential areas, which also forms an essential context for their social relations (Witten et al., 2009).

Although motherhood and everyday life with young children concern most women at some point of life, mothers' social connectedness with other mothers within the neighborhood context has received relatively little attention among researchers. Furthermore, much of the prior research has focused on the benefits of compensative social connectedness among vulnerable groups of mothers, such as single or young mothers, whose wellbeing is typically explored through negative **health** indicators, such as a lower level of depression or anxiety (McCloskey & Pei, 2019; Zhang et al., 2015). While vulnerable groups deserve special attention, some level of maternal stress affects most mothers with young children and social connectedness does not just compensate but can also add to mothers' wellbeing. Therefore, in the current study we explore mothers' social connectedness with other mothers living in the same neighborhood and their life satisfaction.

Being a mother with a young child or children is frequently experienced as a rewarding but also a burdensome stage of life, which can negatively affect mothers' wellbeing (Hansen, 2012; Nomaguchi & Milkie, 2020; Pollmann-Schult, 2014). Maternal burden is found to arise from various sources, including the stress inherent in everyday life with children as well as balancing work with

family life. These stresses can be compounded by the norms and expectations surrounding parenthood which demand great investments on behalf of parents (especially mothers) to ensure the wellbeing and success of their children (Hays, 1996; Nomaguchi & Milkie, 2020). The quality of the local neighborhood, such as social disorder, can also cause maternal stress (Franco et al., 2010; Settels, 2020; Zhang et al., 2015). Furthermore, becoming a mother is often accompanied by a loss of social connections (Kalmijn, 2012; Wrzus et al. 2013). This loss can negatively affect availability of social support and cause maternal stress (Seymour-Smith et al., 2021).

The effects of stressors are generally considered to depend on the availability of resources to overcome the demands of life (Cohen & Wills, 1985). Numerous studies have shown how social support, particularly from a spouse, other relatives, friends and services, buffer mothers' wellbeing against stressors (O'Brien et al., 2019; Salin et al., 2020; Sonnenburg & Miller, 2021). Nevertheless, the role of social support provided by other mothers is found to be more ambivalent. Although becoming a mother increases one's interest in relating to other local mothers (Wrzus et al., 2013), qualitative studies have revealed diverse lived experiences, suggesting that social connectedness with other mothers includes elements that are both beneficial and detrimental for mothers' wellbeing (Gu, 2020; Seppälä et al., 2021; Strange et al., 2014a). Therefore, it is important to understand how mothers' social connections with other mothers can form a source of social support and wellbeing. In this quantitative study, we examine how mothers with young children can benefit from the social connectedness with the local community of mothers in neighborhoods drawing from the Social Identity Approach to Health (SIAH) (Haslam et al., 2018).

1.1 The social context of motherhood

Becoming a mother often reduces mothers' social connectedness such that relationships with friends without children, in leisure activities and with colleagues at work become more distant and the social support afforded by these relationships can be lost (Kalmijn, 2012; Wrzus et al., 2013). As mothers' daily life with young children is often located close to home, the local community of

mothers is perceived as a potential source of company and social support (Strange et al., 2015; Varin et al., 2020; Wood et al., 2011). Although motherhood is found to increase interest in social connectedness with other local mothers (Riikonen et al., 2022; Seppälä et al., 2021), studies report diverse lived experiences among mothers.

In the context of neighborhoods, social connections between mothers typically develop through repetitive encounters in daily life in various child-specific spaces such as playgrounds and 'mother and baby' clubs (Gu, 2020; Glavin et al., 2017; Hancock et al., 2015; Paajanen et al. 2022a; Paajanen et al., 2022b; Seppälä et al., 2021; Strange et al., 2014b; Strange et al., 2016). On the one hand, these local social connections can be beneficial as they can provide company, opportunities to share and compare maternal experiences as well as practical help (Alstveit et al., 2010; Eronen, 2020; Glavin et al., 2017; Kesselring et al., 2012; McLeish & Redshaw, 2017; Nolan et al., 2012; Strange et al., 2014a). On the other hand, these social connections can also be unhelpful and even a source of strain and stress. A common experience among mothers is that the new social connections with other local mothers are based solely on motherhood. Thus, the relationships can remain emotionally distant, which can limit the quality, functions and outcomes of these social connections (Gu, 2020; Peters et al., 2013; Seppälä et al., 2021).

In addition, motherhood and child-rearing practices are imbued with various normative expectations which can also narrow the benefits of these connections. The experience of normative pressures has been found to limit mothers' willingness to disclose their true feelings, thoughts and maternal practices to other mothers, leading to non-optimal social support (Choi et al., 2005, Eronen, 2020; Peters et al., 2013; Seppälä et al., 2021). Furthermore, normative expectations are found to be related to loneliness among mothers who avoid other mothers' company due to a fear of stigmatisation (Lee et al., 2019). Social contacts among mothers can give rise to social comparison and competition, thus causing negative feelings and stress (Gu, 2020; Sanders et al., 2021).

These findings suggest that merely sharing the common category of motherhood is not always enough to elicit supportive connections between mothers. One potential explanation for these diverse lived experiences is the mothers' different levels of identification (i.e., a sense of belonging and commonality) with other local mothers.

1.2 Social connectedness and wellbeing: The role of social contact, group identification and social support

The Social Identity Approach to Health (SIAH) proposes that social connectedness with groups is typically beneficial for group members' health and wellbeing (Haslam et al., 2018). Several studies suggest that group identification with other group members constitutes the 'active ingredient' in this relationship (Fong et al., 2021; Sani et al., 2012; Wakefield et al., 2016). Identification with particular groups makes people willing to receive and accept psychosocial resources afforded by these groups and thus typically promotes a greater level of wellbeing (Haslam et al., 2018). Prior studies conducted in various group contexts have shown how group identification is associated with higher levels of social support, sense of belonging and personal control (Cruwys et al., 2014; Greenaway et al., 2015). From this perspective, social contact alone may not elicit the optimal level of social support between mothers if they do not identify with the local community of mothers and thus are unable to access this group's social and psychological resources.

The role of identification in maternal health and wellbeing along with the development of group identification with other local mothers have remained under-investigated (see Seymour-Smith et al., 2017 for the impact of new group memberships on the level of depressive symptoms among postpartum mothers). In the context of neighborhoods, other research has demonstrated a positive relationship between community identification and wellbeing and illustrated that perceived social support has a significant role in mediating this relationship (McNamara et al., 2013, 2021).

While group identification is found to be the psychological mechanism which unlocks social support from other group members with possible health benefits (Haslam et al., 2018), we argue

that social contact can have an important role in this process. Group identification is traditionally considered to arise from a self-categorization process (Tajfel & Turner, 1979; Turner et al., 1987). Nevertheless, community groups, such as mothers living in the same neighborhood, are typically social networks based on interaction between group members (Gu, 2020). In such groups, the development of a meaningful identification demands positive and frequent contact and interaction between group members to foster a sense of belonging and commonality (Easterbrook & Vignoles, 2013; Lee & Szinovacz, 2016). Thus, positive and frequent contact with other group members can serve to scaffold the development of group identification within community settings and indirectly benefit health through identification and related social support (see also Sani et al., 2012). Prior studies conducted in a community context have indicated the role of social participation in scaffolding community identification such that there are benefits of interacting with others due to the resultant increase in community identification (Fong et al., 2021; Haslam et al., 2020). Furthermore, Bowe et al. (2020) reported that the effect of community volunteering on volunteers' wellbeing was serially mediated through community identification and social support. Yet again, this suggests that initial positive social interactions can serve to scaffold the development of group identification within community settings, which in turn unlocks social support with health benefits. However, this remains unexamined in relation to the specific experiences of mothers.

Nevertheless, not all mothers having frequent positive contact with other local mothers develop a high level of identification with them. For example, a longitudinal qualitative study among first-time mothers showed that mothers who experienced as being outsiders among other local mothers, repeatedly joined their company. Even though they did not identify with the mother group, others' company still afforded some level of needed support (Seppälä et al., 2021). Therefore, we expect that 'mere' contact without identification with other group members affords some level of social support and thus benefits wellbeing. However, this effect may be more modest than for those who share the norms and values of the group.

In the current research, we explore wellbeing through life satisfaction, which is one of the key measures of subjective wellbeing within SIAH literature (Haslam et al., 2018). Based on the presented theoretical and empirical arguments, the following hypotheses are presented:

H1: There is a positive relationship between mothers' frequent and positive contact with other local mothers and mothers' life satisfaction.

H2: This relationship should be serially mediated by group identification (as increased contact should lead to an increased sense of shared identity among mothers) and social support (as identification unlocks social support from other mothers), which in turn should be associated with greater life satisfaction.

H3: In line with previous qualitative work, there should be a residual effect of contact on life satisfaction through social support independent of identification, as 'mere contact' with other mothers should be associated with some degree of support.

2 MATERIAL AND METHODS

2.1 Participants

The sample included 443 Finnish ethnic majority mothers (age: $M = 33.50$ years, $SD = 5.33$). Mothers were recruited voluntarily from two public maternal and child healthcare clinics in Helsinki during five weeks in January and February 2021. These public clinics formed ideal contexts for data collection because in Finland, public clinics are estimated to reach 99.7% of mothers who gave birth and 99.6% of children under school age, who typically visit the clinic with their mother (Finnish Institute for Health and Welfare, 2022). All participants had at least one 0–7-year-old child. The participants had lived in their current residential area for 5.71 years ($SD = 6.74$) on average.

2.2 Procedure and Measures

Participants were asked to complete a paper-and-pencil survey while visiting the clinic. They could also complete the survey at home and return it in a pre-paid envelope. Informed consent was

received from all the participants. The research received a positive ethical statement from the Ethics Committee of the Tampere Region.

Life-satisfaction was measured with one item: “All things considered, how satisfied are you with life as a whole these days?” (Inglehart et al., 2004). Participants were asked to respond to the item on an 11-point scale (0 = completely dissatisfied, 10 = completely satisfied).

Intragroup contact was measured with two items adapted from Voci and Hewstone (2003). *Contact frequency* was measured with: “How frequently do you have face-to-face contact with native Finnish mothers living in your residential area?” with participants responding on a 7-point scale (1 = never, 7 = every day). *Contact valence* was measured with: “When you meet native Finnish mothers living in your residential area, in general do you find the contact...?” with participants responding on a 7-point scale (1 = unpleasant, 7 = pleasant). To obtain a single index of frequent and positive intragroup contact, we recoded and multiplied these items with a procedure described by Voci and Hewstone (2003). Contact frequency was recoded to range from 0 (never) to 6 (every day) and contact valence was recoded to range from -3 (unpleasant) to 3 (pleasant). Then these two items were multiplied to form the index with possible range from -18 (unpleasant contact every day) to 18 (pleasant contact every day). Thus, having no contact was equivalent with neutral contact as both received the value of 0. This procedure allowed us to explore the role of these two aspects of contact simultaneously and it has been widely used in contact research (e.g., Prati et al., 2018; Voci & Hewstone, 2003).

Group identification with other local mothers was measured with three items taken from previous Social Identity research. Two items were adapted from Doosje et al. (1995): “I identify with the community of mothers living in this residential area,” and “I feel strong ties with other mothers living in my residential area,”. We found the other two items of the original measure presented by Doosje et al. (1995) unsuitable for the studied context. The third item was adapted from Doosje et al. (1998): “Being a member of the community of mothers living in this residential area is an

important part of how I see myself,” with participants responding on a 7-point scale (1 = totally disagree, 7 = totally agree). The items had a high level of internal consistency (Cronbach’s $\alpha = 0.96$).

Social support from other local mothers was measured with one item adapted from Haslam et al. (2018): “Do you get the emotional support, help, and advice you need from other mothers in your residential area?” with participants responding on a 7-point scale (1 = not at all, 7 = definitely).

2.3 Analytical approach

We tested a saturated mediational model using Mplus 8.0 (Muthén & Muthén, 2017). The amount of missing data varied from 2% to 12%, depending on the variable. Missingness was not completely at random (MCAR) as missingness was related to some observed background variables (age of the mother, age of the youngest child and tenure in the area). In this case, listwise deletion is suggested to be an **inappropriate** method to handle missingness (van Ginkel et al., 2020). Therefore, we conducted a multiple imputation using a Bayesian analysis (Rubin, 1987; Schafer, 1997). **Missing values were estimated based on 12 complete datasets generated in Mplus (White et al., 2011). Estimates for the missing values represent an average of the 12 separate analysis (Rubin, 1987). Analysis** included study variables and three **auxiliary** variables relating to missingness (age of the mother, age of the youngest child and tenure in the area) **as recommended by Johanson and Young (2011).** We report standardised betas.

3 RESULTS

In the initial data, the mean frequency of contact was 3.67 (SD = 1.92), which corresponded to meeting other mothers between once to several times a month. The mean level of contact quality was high (M = 6.07, SD = 1.14). The mean level of identification with other mothers in the neighborhood was under the mid-point of the scale (M = 2.71, SD = 1.75), and the level of perceived social support from the local mothers was on the mid-point of the scale (M = 4.09, SD = 2.23). On average, mothers reported a high life satisfaction level (M = 8.05, SD = 1.52). Table 1 presents

descriptive statistics and correlations of the model variables based on imputed data. Intragroup contact index is based on rescaled and imputed values of contact frequency (min = 0, max = 6, M = 2.65, SD = 1.91) and contact valence (min = -3, max = 3, M = 1.71, SD = 1.29).

TABLE 1 Means, standard deviations, and correlations between key variables in imputed data

	M	SD	1.	2.	3.
1. Intragroup contact (index)	6.01	5.91	-	-	
2. Group identification	2.63	1.78	0.64***	-	
3. Social support	3.99	2.19	0.56***	0.62***	
4. Life satisfaction	8.04	1.53	0.16***	0.20***	0.24***

N = 443; *** p < 0.001.

In support of our H1, we found a small but significant total effect between the intragroup contact index and mothers' life satisfaction in the sample ($\beta = 0.16$, SE = 0.05, $p = 0.001$). In support of H2, we found a significant indirect effect of the intragroup contact index on mothers' life satisfaction through group identification and social support ($b = 0.01$, 95% CIs [0.004, 0.023], $\beta = 0.05$, SE = 0.005, $p = 0.005$). The intragroup contact index was positively and significantly related to group identification ($\beta = 0.64$, SE = 0.03, $p < 0.001$), while group identification was positively and significantly related to social support ($\beta = 0.45$, SE = 0.05, $p < 0.001$), which in turn, was positively and significantly related to life satisfaction ($\beta = 0.18$, SE = 0.06, $p = 0.003$). The intragroup contact index had no direct effect on life satisfaction when group identification and social support were controlled for ($\beta = 0.01$, SE = 0.06, $p = 0.88$). The model explained a significant amount of variance (6.2%) in life satisfaction.

In support of our H3, we found a significant indirect effect of the intragroup contact index on mothers' life satisfaction through social support when the effect of group identification was controlled for ($b = 0.01$, 95% CIs [0.003, 0.023], $\beta = 0.05$, SE = 0.005, $p = 0.014$). The intragroup contact index was positively and significantly related to social support ($\beta = 0.27$, SE = 0.05, $p <$

0.001), which in turn, as reported above, was positively and significantly related to life satisfaction.

See Figure 1 for the serial mediation model¹.

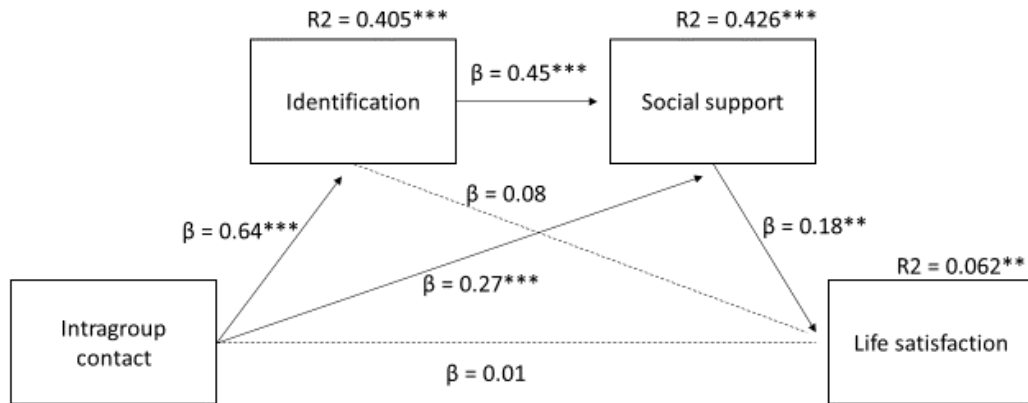


FIGURE 1 Serial mediation model showing that group identification and social support mediate the positive effect of frequent and positive intragroup contact on life satisfaction. Standardised coefficients reported.

** $p < 0.01$; *** $p < 0.001$.

4 DISCUSSION

Given that becoming a mother often reduces mothers' social connections, which can negatively affect availability of social support and cause stress, this study focused on mothers' social connections with other mothers living in the same neighborhood as a potential source of social support and wellbeing. Our results indicate that frequent and positive contact with local mothers is positively related with mothers' life satisfaction through identification-based social support and that contact also has an independent indirect effect on life satisfaction through social support.

¹ We also tested a reversed serial mediation model in which life satisfaction was the independent variable and contact index was the final dependent variable. The results of this analysis are reported in an Appendix A.

The current findings extend the previous research on the health benefits of social connectedness (Holt-Lunstad et al., 2010) by showing that mothers who are more frequently in positive contact with other local mothers report being more satisfied with their life and that this association is fully mediated by the perceived social support (Hancock et al., 2015). Much of the previous literature has focused on vulnerable groups of mothers (e.g., depressed, young, single, migrant and mothers of children with health problems) and the indicators of negative health as the outcomes (e.g., depression, stress, anxiety) (McCloskey & Pei, 2019; Zhang et al., 2015). Instead, our study suggests that mothers in general can benefit from social connectedness with the local community of mothers.

The current findings also provide preliminary evidence of frequent and positive contact forming a base for the development of a sense of identification with other local mothers, which further increases likelihood of perceived social support from these other mothers. These findings add to previous literature suggesting that social interactions can serve to scaffold the emergence of social identification, which in turn unlocks further social support (Bowe et al., 2020). This suggests that within residential community settings at least, the development of shared identifications with others may be a more gradual, organic and recursive process than previously considered. Recent studies have revealed that community identification can be enhanced by various interventions which support perceived similarity between group members and group members' experienced fit with the group (Cruwys et al., 2022; Steffens et al., 2021). In the current study, frequent and positive contact experiences with other mothers can be associated with experiences of similarity and experienced fit with the local group of mothers (see also Seppälä et al., 2021).

The current study emphasises the meaning of repetitive and positive contact as an essential prerequisite for the development and maintenance of identification with a much stronger association between contact and identification than in previous studies (Sani et al., 2012; Wakefield et al., 2016). This can be related to the examination of the role of positive contact in this study unlike

previous studies which did not control for the quality of contact. Another possible explanation is that we studied social connectedness with a community group that has no clear boundaries, whereas the previous studies focused on formal groups or groups that have clearer boundaries such as families, work teams and activity groups. Membership in community groups, such as mothers living in the same neighborhood, is achieved and maintained through repetitive contact with other group members, whereas membership in formal groups may be gained more through a cognitive self-categorisation with the group (Easterbrook & Vignoles, 2013). In community groups, the content of the group identity can be less clear and under constant change as members can freely join and exit the group, and therefore repetitive contact with other members is needed to build and maintain the sense of belonging and commonality with the group. The content of the group identity is clearer and more stable at least in longstanding formal groups, and less contact is needed to maintain psychological connectedness with the group.

Our results also clarify the role of intragroup contact and identification in wellbeing. Several previous studies suggest that the unique effect of mere contact on wellbeing is more modest than the effect of group identification (Sani et al., 2012; Wakefield et al., 2016). Sani et al. (2012) speculated that this can be either because identification partly mediates the effect of contact or because the negative contact experiences of some may cancel the positive contact experiences of others. Our study provides some evidence for both of these explanations by showing that frequent and positive intragroup contact does indeed enhance wellbeing partly through identification. However, the direct and the indirect (through identification) effects of contact on perceived social support seemed to be equally strong. In other words, contact afforded social support equally when it scaffolded the development of the identification and when it was unrelated to identification. Nevertheless, we do not know whether contact affords qualitatively or functionally different kind of social support directly and through identification.

In practical terms, more and more families with children live in high-rise buildings within high density neighborhoods in major Western cities. Living in such areas is found to be associated with mechanisms such as privacy norms that can limit social contact between residents (Warner & Andrews, 2019). In our study, for most of the respondents, contact with other mothers was infrequent; on average, mothers reported having monthly contact with other local mothers. Furthermore, the COVID-19 pandemic has seriously reduced social contacts, with mothers reporting increased levels of stress, loneliness and mental health problems (Dickerson et al., 2022; Ollivier et al., 2021; Salin et al., 2020). This research suggests that special attention should be paid to those who have become mothers for the first time during the pandemic because their opportunities to connect with other mothers are particularly limited. Some mothers may benefit from online support groups, but those may not replace the need for (and benefits associated with) formally and informally organised groups and activities to enable frequent in-person contact for mothers and their children in the residential context (Ollivier et al., 2021; Warner & Andrews, 2019).

This study was conducted in Finland, where the state supports mothers and families financially as well as through the public maternal health care system. Irrespective of relatively generous financial support and health care services, recent research shows that Finnish women have children later in their lives and have fewer children compared with their peers in other Nordic welfare states (Helstrand et al., 2021). Thus, these policies may not be enough to boost fertility rates in Finland. Furthermore, a recent study suggests that mothers experience more parental stress in countries like Finland where gender equality in the society is at a high level (Roskam et al., 2022). This may be because relatively high gender equality in the public sphere sets also high expectations of parental equality, but these expectations are not fulfilled in the everyday life of parenting (Roskam et al., 2022). Thus, support from other mothers can be particularly meaningful in this kind of context. This is one of few studies that consider the role of community or group based social support in maternal wellbeing.

The limitations of this study suggest avenues for future studies. First, it is possible that the two pathways for social support – identification-based and mere contact-based – afford qualitatively or functionally different kinds of social support. We were unable to explore the possible differences more closely because we measured perceptions of social support with one general item. Thus, future studies should use more detailed measures to cover the relevant dimensions of social support. Secondly, it is also possible that the two pathways are related to different time horizons. Development of meaningful identification **may** demand time (Seymour-Smith et al., 2017), and it is possible that identification-based social support is more common among those who have been in contact for a longer time, whereas mere contact-based support is more common among those who have more recently connected with other mothers. Thus, future studies could focus on the moderating effect of contact tenure. Thirdly, our sample included only ethnic majority mothers. Therefore, future studies should explore the suggested processes among ethnic minority mothers and analyse the moderating role of also other factors that can increase mother’s vulnerability such as being a first-time mother, single-mothers, or having a low-income. It is likely that these factors increase mothers’ dependency **on** other local mothers and therefore the association between contact with other mothers and life satisfaction might be stronger among these groups (see e.g., Hoogerbrugge & Burger, 2018). Fourthly, longitudinal **or experimental** designs are needed to confirm the causal directions of the studied variables as our study was cross-sectional in nature. Our model was theoretically based on the Social Identity Approach to Health (Haslam et al., 2018), but it is also possible to consider that life satisfaction predicts more frequent and positive contact because people who feel better have more resources to make contact than those who feel worse (e.g., Kaiser et al., 2020). **Longitudinal studies could also test a recursive model in which contact predicts life satisfaction which in turn predicts more contact.**

5 CONCLUSION

Previous studies show that other mothers in the neighborhood can be a source of support but also a source of stress for mothers with young children. This study suggests that mothers' frequent and positive contact with other local mothers benefits their wellbeing to the extent that it enhances their identification with the local community of mothers and is perceived to provide needed social support. These findings suggest that the primary focus of interventions should be on the support provided by frequent and positive contact among mothers. This requires opportunities for contact in various formal, semi-formal and informal settings as well as a normative climate which facilitates a sense of belonging and commonality.

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Appendix A

A reversed serial mediation model

In the reversed serial mediation model, life satisfaction was used as an independent variable and the intragroup contact index as the final dependent variable. The order of the mediators was the same as in the initial model. According to this analysis, life satisfaction was positively related to identification ($\beta = 0.20$, $SE = 0.04$, $p < 0.001$), identification was positively related to social support ($\beta = 0.59$, $SE = 0.03$, $p < 0.001$), which in turn was positively related to intragroup contact index ($\beta = 0.26$, $SE = 0.05$, $p < 0.001$). In this saturated model, life satisfaction had no direct effect on contact ($\beta = 0.01$, $SE = 0.04$, $p = 0.877$). Life satisfaction had a statistically significant indirect effect on intragroup contact index through identification and social support ($b = 0.12$, 95% CIs [0.051, 0.089], $\beta = 0.03$, $SE = 0.04$, $p = 0.001$). Furthermore, life satisfaction was positively related with social support ($\beta = 0.12$, $SE = 0.04$, $p = 0.002$) and identification was positively related with contact ($\beta = 0.47$, $SE = 0.05$, $p < 0.001$).