Social Support Networks and Maternal Mental Health and Well-Being

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ABSTRACT

The link between social networks and mental health has increasingly been recognized by public health as an important topic of interest. In this paper, we explore this association among a specific group: mothers. Specifically, we discuss how maternal mental health can be understood in the context of social networks, the influence of specific social relationships, and how the type and quality of support can mediate maternal mental health outcomes. We review interventions that foster social networks to address maternal mental health as well as other related health outcomes. Findings suggest that interventions that combine multiple treatment approaches may be more effective in addressing mental health. Also, traditional measures of social networks may not be appropriate for vulnerable populations, with qualitative, rather than quantitative, indicators of social networks being more predictive of maternal health and well-being. The implications of these findings and future research directions are discussed.

INTRODUCTION

Humans have a need to belong to social groups. Fulfilling relationships with family, friends, or significant others are fundamental to a meaningful and happy life. Close ties benefit the individual through better health outcomes, improved coping mechanisms, and increased life satisfaction.1 Numerous studies have shown that being loved and emotionally supported protects against physical illness and premature death.2-4 In addition, social relationships are found to affect mental health through their influence on an individual’s stress level, depression, anxiety, and psychological well-being.3,5

A social network is a set of individuals or groups who are joined together by relationships (e.g., kinship, friendship, sexual behavior, monetary exchanges) that serve as channels through which physical, instrumental, material, or emotional resources may flow.6-8 These relationships can exist between persons, organizations, com-
munities, or nations. They may be intimate and personal or casual acquaintanceships and may occur face-to-face or by other means, such as writing, telephone, or online. A network approach emphasizes relationships rather than individual characteristics. The structure and quality of a social network has consequences for its members, and actions among one set of relationships can have an impact on other entities in the network.

The influence of social relationships on health status has been recognized increasingly in public health and epidemiological research, with researchers identifying important mechanisms through which this association operates. The first of these mechanisms is the role of social networks as vectors of disease transmission. The power of the relationships themselves is also of interest in public health, as the quality of social ties can influence a variety of physical and mental health outcomes. Robert Putnam’s *Bowling Alone* argues that society’s health is jeopardized by the erosion of our social networks. As we become less involved with a variety of groups and organizations, we increase our morbidity and mortality risk. In addition to providing needed social support, networks expose individual members to social regulation, monitoring, or peer pressure that can affect health behaviors. Social ties can influence participation in positive health activities, such as exercise, proper eating habits, regular checkups, and treatment adherence, or in health risk behaviors, such as smoking, drinking, or drug use, and may have lasting long-term effects on health outcomes, such as obesity.

Beyond the effect on health outcomes, public health has been interested in how social networks may be used to improve health and well-being among specific groups. Network interventions have been conceptualized as one-on-one models, support groups, and enhancements of naturally occurring networks and have employed a variety of techniques, ranging from traditional face-to-face interactions to use of the internet.

The purpose of this paper is to explore the association between maternal social networks and mental health. We focus specifically on maternal mental health for several reasons. First, the effect of social relationships on maternal mental health is a rapidly growing area of research. For example, recent studies have examined how social relationships can mitigate postpartum depression, reduce parenting stress, and improve maternal well-being. In addition, there is substantial evidence that the relationship between social networks and maternal mental health has a rippling effect, influencing parent-child relations and various child developmental outcomes. Third, several interventions aimed at high-risk parents have sought to improve the social networks of the participants, with the goal of understanding the functions these networks serve and influence they have on parental and child outcomes. Results from such studies suggest that there is a need for alternative approaches to studying the relationship between maternal mental health and mothers’ social networks. There is evidence to suggest that the nature and quality of social ties rather than the quantity of ties alone are better indicators of the role of social networks in this population, particularly with respect to predicting the availability of social support and coping resources.

MEASURING SOCIAL NETWORKS

Measures used to evaluate social networks can be classified into two measurement domains. The first domain is used to assess the structure of the social network, including the number of individuals in a network (size), the degree to which an individual’s relationship ties are intertwined with one another (density), classification of ties in a network by type, such as friends or family (composition), and the proportion of ties with the same characteristics (homogeneity). In addition, a network analysis can involve a focal individual and his or her social ties (ego-centered network) or a set of individuals and the relationships that exist among them (complete network).

The second domain captures the functional aspects of a social network. Social support is the provision of resources (i.e., emotional or instrumental) from network members as well as a sense of connection and affirmation of value. Social integration refers to the extent to which an individual is embedded in a social community by being involved in a wide range of relationships.

Research studies have been conducted assessing maternal social networks directly by describing network members and their ties to the mother; in addition, mental health research has investigated social networks more indirectly by addressing the larger social context (e.g., neighborhood characteristics and the sense of community).
Community mothers may feel with the neighborhoods in which they live) and by measuring social support derived from the social network. Social support can be conceptualized as an asset available to the mother, with increases in the level of support representing increases in benefits. Support can also be conceptualized as a critical limit variable; for example, having at least one close, confiding relationship is key to a number of maternal mental health outcomes.30,42,43

In recent research, more emphasis has been placed on the qualitative and interpersonal aspects of social networks. Several studies have documented a difference between perceived and received social support, noting that there is a relatively low correlation between the two constructs.20 Such distinctions are key because it is perceived support, rather than received support, that is most closely tied to health outcomes.20 Although much of the existing literature places an emphasis on the relative size and proportional composition of social networks, these factors may not always be related to indicators of social support, coping, and sense of community.44,45 Although most research highlights the positive features of networks, social relationships can also function negatively by creating stress, conflict, or disappointment or providing ineffective help.47,48 Several studies have found that problematic social ties are more predictive of depression than is a lack of supportive relationships.47,49,50

**MATERNAL SOCIAL NETWORKS AND MENTAL HEALTH**

Specific links have been established between social support networks and a variety of mental health outcomes, including depression, anxiety, stress, coping with traumatic events, and psychological well-being.5,51–53 Generally, larger and more supportive networks have been associated with lower stress, increased personal well-being, and greater personal self-efficacy. In contrast, smaller social networks and inadequate social support are correlated with depression.5,54 As noted previously, social relationships can also be a source of conflict and strain.55 Situations where an individual’s social network can negatively impact mental health are particularly salient for low-income women, who are more likely to have people in their network who have high levels of stress while concurrently possessing the fewest resources with which to respond to these challenges.5,56

Maternal mental health has been identified as an important area of study, recognizing mothers as a unique subgroup among women. Much of this research has been concerned with postpartum depression, as major depressive episodes associated with childbirth affect approximately 10% of childbearing women.57 Beyond the postpartum period, research has explored the relationship between parenting and mental health. The role of motherhood may have a unique impact on the interplay among social network factors and mental and physical health.58 In contrast to other social roles, such as wife or employee, that are associated with enhanced mental health among women, being a mother does not appear to provide significant mental health benefits. Most research in this area has found either that women with children do not significantly differ in mental health status compared with their childless counterparts or that parenthood actually increases depression, emotional distress, and other mental health problems.59

Intuitively, being a parent should improve mental health by providing the individual with a sense of responsibility, meaning, and purpose. However, researchers hypothesize that parenting involves a number of mental health costs, including time, physical and emotional energy, conflicts with other social roles, and the economic burden of childrearing. These hardships are especially salient for women, who are often the primary caretakers of children, and may be compounded if they are also single parents.59–61 It is important to note, however, that the way a mother perceives and internalizes her stress affects her ability to cope and therefore may impact her mental health and well-being. Mastery, or the extent to which a person feels she can control or influence outcomes, and self-efficacy have been associated with maternal well-being.62 A number of studies have also suggested that optimistic people have higher levels of emotional well-being at times of stress than do those who are less optimistic.58,63 Mothers who are self-efficacious and optimistic may not perceive hardships in the same way as less self-efficacious mothers and, consequently, may not experience the same level of stress and poor mental health outcomes.64 People develop habitual ways of explaining their successes or failures in life, and those become unspoken assumptions that may affect their subse-
quent behavior and ultimately their mental health and well-being.

To begin to understand the determinants of maternal mental health, it is useful to address the multiple contextual and environmental influences at play. A mother’s mental health status is the outcome of the interchange between genetic and personality traits, the immediate social networks in which a mother lives, and the larger societal context. Systematic influences on individual human development are conceptualized in terms of the mother’s real world ecology. Bronfenbrenner, proposed four sources of influence on an individual’s development: interactions with immediate settings (e.g., home, school, job—microsystem), the interrelations among major settings containing the individual (mesosystem); formal and informal social structures that affect the individual (e.g., media, neighborhoods, agencies—exosystem), and the ideological patterns of the culture and subcultures of the settings in which the individual functions (macrosystems). Because context is presumed to influence the development of the individual, this model helps to emphasize how important social ties within networks are to maternal mental health. Therefore, contextual influences are key factors to consider when examining social networks.

A growing body of research has examined mental health in the context of the social environment rather than limiting it to an intrapersonal characteristic. This line of research has been concerned with the relationship between maternal support networks and mental health and well-being. A significant amount of this work has focused on low-income mothers, as they are at particular risk for depression and other negative mental health outcomes. An early study by Belle found that mothers who did not have daily assistance with household and childcare tasks and did not have someone to talk with were more likely to experience depression. More recently, Silver et al. and Mulvaney and Kendrick found that a lack of social support was significantly associated with high maternal distress and depression among samples of innercity mothers of young children. For this group, personal social networks were determined by those individuals to whom mothers had access to in their immediate environment. This often translated to fewer social ties on which mothers could rely and more difficulty handling the relationships that did exist. In a similar sample of low-income mothers, the endorsement of at least one difficult social network tie was related to lower levels of reported coping resources and perceived sense of community. Mothers with limited resources may struggle to respond to the needs of other network members while simultaneously being less likely to receive support in return. Therefore, among mothers with few resources, network interactions can involve a number of personal costs, including higher levels of stress, depression, and other mental illness symptoms.

It is clear, however, that social support is not a static characteristic of a mother’s environment or that mothers are only passive recipients of support. Instead, there are multiple interactive processes between a mother’s personality characteristics and her social environment. Mothers differ in how well they are able to seek and maximize their own social support networks, and positive experiences with social support will likely influence subsequent social relationships. For example, Green and Rodgers’ longitudinal study of low-income mothers found a reciprocal relationship between mastery and perceived support. A mother’s initial sense of mastery led to subsequent perceptions of having people to go to for advice and instrumental support. Similarly, mothers who initially felt that they had tangible support available to them were more likely to feel a sense of mastery later.

Mothers who have supportive social networks available to them have also been shown to be better equipped with resources that buffer stressful events such as homelessness or raising a child with a disability. In families that face economic hardship, punitive, harsh, and controlling parenting styles are less likely to be found when there is a supportive and extensive network. However, social networks are not always beneficial to mental health. When conflict arises among members or when there is an overload of information and interaction, networks can contribute to stressful home environments for mothers.

Neighborhood context

Neighborhood factors are associated with the strength of the social network, and neighborhood structural characteristics can influence residents’ mental health. If these characteristics are negative, such as aggregated low socioeconomic status of residents and social or physical disorder
(i.e., fear of crime, litter, noise, unsafe conditions), they can cause increased stress as well as fear, distrust, low self-esteem, feelings of powerlessness, and depression. Overall, those in poor and disadvantaged neighborhoods have fewer social ties, increased social isolation, feelings of alienation, and less social control. In contrast, neighborhoods with high socioeconomic status of residents, resources through informal social ties with neighbors, or participation in formal organizations are associated with better mental health and well-being for residents.

In general, communities offer mothers resources for facing challenges in raising their children. These resources come in the form of both material and social support. One important aspect of social support is how an individual feels about a given community, generally referred to as one’s sense of community. Whether or not a mother feels a sense of community with the neighborhood in which she resides influences whether the neighborhood functions as a social network for her. Sense of community in neighborhoods can be seen as a desirable factor. Mothers who feel a strong sense of community and have established neighborhood support networks have better mental health than those without such resources. There are situations, however, where a neighborhood is so toxic (due to poverty, drugs, crime, or violence) that mothers isolate themselves and their children as protection against the negative effects of their community. For example, when mothers perceive their neighborhoods to be dangerous, they are more likely to place limits on their children’s activities and increase supervision. In these situations, withdrawal from stressful neighborhood ties can be seen as a positive adaptive measure by the mothers. In communities with high levels of stressors, social isolation may be a protective measure, and connectedness to disadvantaged areas actually may be detrimental to mental health.

**Types of relationships**

Although studies of social networks often describe them as a whole, it is clear that the characteristics of maternal social ties can differ greatly, and certain relationships are of particular significance. Thus, it is useful to differentiate among types of ties in order to understand the nature of their effect. For example, Hall et al. found that in addition to the quantity of social ties, the quality of social ties as modified by type of intimate relationship was a significant predictor of psychosomatic symptoms among a sample of low-income mothers with small children.

One of the key determinants of maternal mental health is the marital or equivalent intimate relationship. For example, in the postpartum period and beyond, having partner support is associated with lower levels of stress and depression. In contrast, single mothers are more likely to be socially isolated and have less stable and supportive networks, which translates to poorer mental health. These disparities are linked to the difficulty of simultaneously juggling parenting responsibilities and the demands of other social roles (i.e., employee) and the lack of emotional support provided by a partner. However, not all studies document that spouses or partners have a direct impact on maternal mental health. In the study by Hall et al., the quality of relationships with family members was inversely associated with psychosomatic symptoms, whereas the quality of husband and boyfriend relationships was not.

Grandmothers often play a significant role in a mother’s social network, and the role of the mother-grandmother relationship has been examined for its potential effects on maternal mental health and maternal and child outcomes. Particularly for at-risk women, living with one’s own mother is associated with more positive parenting behavior through the provision of social support. In several studies, adolescent mothers identified grandmothers as the primary members of their social networks on whom they depend the most, particularly for childcare assistance. Mothers’ relationships with other relatives, friends, and acquaintances are also important for mental health. Research finds a strong reliance, particularly among low-income, single mothers, on extended family and friendship networks for both instrumental and emotional support, although this support has both positive and negative consequences. Belle found that help with childcare from friends and extended family was associated with positive mental health among a group of low-income mothers with children. Similarly, in a 7-year follow-up study of women who were pregnant as teens, support from friends was significantly associated with lower levels of depressive symptoms. However, some mothers do not have equal access to friends as was...
found in a recent study where one quarter of mothers listed no friends as part of their network.44

Types of support

In addition to the influence of certain types of relationships on maternal mental health, research has identified particular characteristics of support that are important. Social support is one of many functions served by the individuals in one’s social network. Members of a social network may offer support to a mother by taking on childcare responsibilities, giving parenting advice, or simply offering encouragement.40,67,87,90 For mothers of young children, the availability of two aspects of social support is particularly helpful: someone to assist with childcare and someone to turn to for emotional aid. Childcare assistance (e.g., babysitting, discussion of child-rearing problems) is positively linked to the quality of mother-child interactions; low-income mothers with such support are less dominating, emotionally warmer, and responsive to their child’s needs and they experience feelings of confidence and general well-being.91 According to self-reports, adolescent mothers with high levels of emotional support are less likely to ridicule, reject, or threaten their children.92

SOCIAL NETWORKS AND INTERVENTIONS PROMOTING MATERNAL MENTAL HEALTH

Interventions that are aimed directly at improving maternal mental health may benefit from acknowledging and accommodating the parenting role. Moreover, as poor maternal mental health and poor parenting skills are linked and problems arising in the parent-child relationship may exacerbate mental health conditions, maternal mental health can be enhanced through interventions that are aimed at improving parenting skills.93,94 Given the stress related to parenting, particularly in mothers from at-risk communities, there have been numerous interventions targeted toward improving parenting competence and, thus, decreasing the associated stress and strain on the mothers’ emotional and mental health.95

Although studies have addressed social networks in mental health interventions and social support in parenting interventions,71,90 there is only limited information on the role of social networks in mental health interventions specially for mothers. The importance of incorporating supportive social networks into interventions aimed at mothers is highlighted by the fact that these interventions are often conducted in groups.97 Group therapy is widely used in mental health interventions and many programs designed to improve parenting are conducted in groups where parents can support each other in the process of learning new skills. Thus, group interventions seek to use the supportive aspects of social networks that can be created in such therapeutic settings, in part spontaneously and in part created by the intervention process.98

Several interventions aimed at improving maternal mental health explicitly address social support. For example, Lipman and Boyle34 report on a randomized, controlled trial of a community-based program developed to improve maternal well-being and parenting skills through group sessions offering social support and education. The results indicate that the intervention provided short-term, positive effects on maternal mood and self-esteem but had no impact on social support and parenting. Zachariah35 implemented an intervention among a group of young, single, low-income mothers. The goal of this intervention was to assess the women’s current perceptions of their social support networks and if involvement in a parenting program could improve these perceptions. Although the final sample was small (seven mothers completed the program), the findings suggest that the program increased the mothers’ number of social relationships and improved their perceptions of their social support networks. Dunham et al.27 found that giving single mothers access to support networks through computers can also create a sense of community and decrease parenting stress.

Even interventions that are not designed to address social networks benefit from considering them as potential facilitators or barriers to the success of the intervention.90,99 For example, mothers’ social networks may influence whether they are likely to enter and continue in an intervention. In a study examining participation in prevention programs, women with lower density networks and less frequent contact with kin were more likely to seek child-rearing advice than women in denser, more kin-involved networks.99 In addition, mothers often actively involve their so-
cial networks when participating in parenting interventions. Walker and Riley found that the degree to which mothers discussed newly received parenting information with their social ties predicted the amount of behavior change among the mothers. Olds et al., examined the impact of home visits by nurses and paraprofessionals on maternal and child outcomes, including maternal mental health. They found that mothers who participated in the home visits reported a greater sense of mastery and better mental health. A follow-up study by Cole et al. found that a mother’s family structure and support influenced the effectiveness of the home visiting intervention. Mothers who lived with a partner had the best caregiving environments, while mothers who lived alone made the greatest improvements. Mothers’ relationships are critical not only to implementing intervention programs but also for understanding their effect. Whether social ties are supportive or resistant to an intervention strongly influences a mother’s ability to implement health-related changes.

Ultimately, combining treatment approaches intended to reduce or prevent mental health problems, expand social networks, and enhance mothers’ knowledge of child development may be more effective than any single approach. Joining treatment modalities into one intervention offers a comprehensive model for addressing multiple problems.

CONCLUSIONS AND FUTURE DIRECTIONS

Poor maternal mental health is an important public health issue because of its prevalence, burden on the individual, burden on society, and potential rippling affect on other family members, especially children. Research has demonstrated the association between maternal mental health and social networks where mothers with more supportive networks experience better mental health outcomes.

There is a clear relationship between supportive social networks and mothers’ ability to cope with stressful life events, as well as their ability to use adaptive parenting behaviors. Nurturing styles of parenting, positive mother-child interactions, and mothers’ ability to provide stimulating environments are more likely to be present when mothers also have supportive social networks. Supportive networks benefit mothers in three ways. First, mothers are able to acquire information on developmentally appropriate methods of parenting. Second, support networks offer tangible resources in the form of childcare and financial assistance, and finally, networks can serve as buffers against maladaptive parenting and stressful life situations. These modes of assistance translate into parenting environments that contribute to positive outcomes for children and improved mental health and well-being for mothers.

There is considerable evidence that interventions providing supportive social networks can improve health-promoting behavior among mothers, as intervention participants consistently report that they appreciate being able to discuss issues and get advice from other group members. Whereas supportive networks can be beneficial to mothers, the potentially negative aspects of networks have the potential to act as psychological stressors, causing cognitive, affective, and biological responses thought to increase the risk for poor health. Providers need to assess a mother’s social network in order to identify barriers and facilitators for positive behavior and aim to increase support for the mother. Such approaches to health-promoting behavior can also apply to promoting maternal mental health.

The recently published findings of a longitudinal study on social networks and obesity found that weight gain in an individual was associated with weight gain in his or her social ties, including friends, siblings, and spouses. These results demonstrate the potential for widespread effects on health outcomes within a social network. Additionally, results of methodologically complex studies such as this, illustrate the importance of fully documenting social network effects on health outcomes to better address various public health concerns.

Since not all social relationships are beneficial, we need additional research on the impact of problematic social ties on health outcomes, particularly in at-risk populations. Preliminary research in this area has shown that measures of quality, rather than the quantity, of social ties may be a better indicator of the role of social networks in low-income populations. These types of measures need to be incorporated into future social network studies and interventions.
Promising interventions that improve maternal mental health via enhanced social support networks provide a potentially cost-effective approach to address a myriad of public health issues, as they could result in a wide-range of individual and societal benefits. These would include, but not be limited to, improved mental health and well-being for women and their children.

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