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Relationship of Mothers with a Diagnosis of Schizophrenia with their Babies

Şizofreni Tanısı Olan Annelerin Bebekleri ile İlişkisi

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ABSTRACT

Schizophrenia is an important mental health problem that causes various obstacles in women's parental roles and responsibilities and causes problems in mother-infant interaction. Mothers with a diagnosis of schizophrenia may have noncompliance with treatment after birth, and professionals involved in the child protection system may make protection decisions about babies due to the risks it poses. However, these risks can be minimized by providing professional psychosocial support services for mothers with schizophrenia, such as compliance with postnatal treatment and establishing a healthy mother-infant relationship. In this context, this study aimed to address the problems and interventions that may arise in the interaction of mothers and their babies.

Keywords: Schizophrenia, mother-infant relationship, attachment, maternal sensitivity

ÖZ

Şizofreni, kadınların ebeveynlik rol ve sorumluluklarını gerçekleştirmelerinde çeşitli engellerin ortaya çıkmasına ve anne bebek etkileşiminde sorunlara neden olan önemli bir ruh sağlığı sorunudur. Şizofreni tanısı olan annelerin doğum sonrasında tedaviye uyumsuzluğu olabileceği gibi bunun ortaya çıkardığı riskler nedeniyle çocuk koruma sisteminde yer alan profesyoneller bebekler hakkında koruma kararı verebilmektedir. Ancak şizofreni tanısı olan anneler ile doğum sonrası tedaviye uyum ve sağlıklı anne bebek ilişkisinin kurulması gibi konularda profesyonel psikososyal destek hizmetleri sağlanarak bu riskler en aza indirilebilir. Bu çerçevede, bu çalışma ile şizofreni tanısı olan annelerin bebekleri ile etkileşimlerinde ortaya çıkabilecek sorunlara ve müdahalelere değinilmesi amaçlanmıştır.

Anahtar sözcükler: Şizofreni, anne bebek ilişkisi, bağlanma, anne duyarlılığı

Introduction

For healthy growth and development, a child needs interaction with their parents, who meet their biopsychosocial needs, show affection, and make them feel safe. Children's needs may be considered in three different categories: physical needs (e.g., nutrition, contact/comfort, warmth, security), social needs (e.g., interaction, learning, socialization, setting boundaries), and emotional needs (e.g., love and affection). Thus, parenting includes not only the act of raising children but also the responsibility to nurture their physical, emotional, social, and intellectual development. "Motherhood," on the other hand, is a seminal parenting-specific concept that starts with the appearance of an embryo in the womb and continues throughout life, creating permanent changes to the structure and organization of daily life as well as the relationships and roles of women. This process also includes rewarding but challenging tasks for women (Nomaguchi and Milkie 2003).

Nevertheless, mental disorders may lead to some unique obstacles to maternal roles and responsibilities. Schizophrenia, among such mental disorders, often arises from a combination of genetic and environmental risk factors (Cardno et al. 1999) and leads to the inability to fulfill the functionality required by social and occupational roles and loss of several other competencies (Kılıç 2020). As quoted in American Psychiatric Association's (APA) Diagnostic Statistical Manual of Psychiatric Disorders (DSM-5), schizophrenia "*is a psychiatric disorder affecting markedly one or more major areas of functioning*

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such as work, interpersonal relations, or self-care are markedly for a significant portion of the time since the onset of the disturbance and is characterized by delusions, hallucinations, disorganized speech (frequent deviance from the topic or incomprehensible speech, highly disorganized behavior or catatonic behavior, faint (negative) symptoms (decreased emotional involvement or failure to engage)" (APA 2013).

According to data from the World Health Organization (WHO), schizophrenia affects approximately 24 million people worldwide, 1 in every 300 people (WHO 2022). In a systematic review by Binbay et al. (2011) in Turkey, the lifetime prevalence of schizophrenia was found to be 8.9% per 1000 people, while it was 11.6% per 1000 people among males and 6.5% per 1000 people among females (Binbay et al. 2011). In this context, it also seems important to touch upon the burden of disease (BoD) research on the rate of schizophrenia in a certain population and risk factors. Thanks to evidence-based data, BoD research helps estimate diseases, injuries, and mortalities, as well as health problems and associated risk factors, reach risk factors-related statistics, and evaluate the efficiency and cost of protective, preventive, therapeutic, and rehabilitative interventions (Murray et al. 1996, RSHMB 2004, Erbaydar 2009). The Burden of Disease Study in Turkey highlights that neuropsychiatric disorders rank first among those causing life-long disability with 27.8%, while schizophrenia is among the top 20 conditions causing disability with 2.5% (Öztürk and Uluşahin 2011).

Before needing any treatment, about 30% of women diagnosed with schizophrenia have children (Craig and Bromet 2004). Whereas the chance of pregnancy was meager among hospitalized psychiatric patients in the past, they have as many children as healthy women today (Currier and Simpson 1998), and about half of women with schizophrenia are mothers (McGrath et al. 1999). The adverse impacts of schizophrenia on parenting and the parent-child relationship have been well-known for a long time (Smith 2004). The overall impression in the mental health is that schizophrenia is always a form of mental disorder that is severe and persistent enough to prevent "good enough" parenting (Riordan et al. 1999, Davies and Allen 2007). Being a parent with schizophrenia often involves difficulties while caring for the child, such as delusions, hallucinations, and other difficulties initiated by the disorder.

In their study with 1,825 parents with psychosis, Campbell et al. (2012) concluded that approximately 50% of the fathers and 36% of the mothers experienced problems in parenting. Another study found that the difficulty in focusing due to depression, fatigue, and voices negatively affects the ability to protect children, reciprocity, and control (Strand et al. 2020). Moreover, many parents with schizophrenia also face unemployment, poverty, loneliness, and stigma (Park et al. 2006). Women also try to cope with the lack of social support, role tension, cognitive and health problems, side effects of drugs, impulsivity, and feelings of shame and guilt due to their parenting decisions (Ackerson 2003). Schizophrenic parents, particularly mothers, constitute a group with difficulties in accessing healthcare and social services (Montgomery et al. 2006).

The nature of the disorder may also raise concerns about child care and protection. Yet, contemporary concerns mainly target mothers' competence to ensure their children's safety and optimal emotional and cognitive development. In this respect, satisfying the needs of the child and ensuring their safety and care are among the priorities in accordance with the principle of the best interests of the child rather than the needs of the mother. The condition may bring the belief that schizophrenic women remain inadequate in parenting and may not decide to be treated (Lagan et al. 2009), which often causes children to be taken under protection, such mothers to lose custody of their children, and temporary or permanent loss of attachment with their children.

Young mothers with a psychotic disorder need significant postnatal support to be able to perform the necessary care for their babies and meet their needs. Thus, assessing the characteristics of mothers diagnosed with schizophrenia, the risks to arise in their interactions with their children due to the nature of the condition, and identifying what psychosocial interventions specific to this issue might be are considered essential to facilitate a healthy mother-infant interaction. In this context, the present study employed what was found in the literature to address the issues and interventions in the interactions of mothers with schizophrenia with their babies.

Characteristics of Mothers with Schizophrenia

One may experience various difficulties in adapting to motherhood and child care; however, schizophrenia brings with it much greater challenges in performing maternal roles and responsibilities. Even mothers may not be aware that they have schizophrenia. The disorder-related depression, fatigue, and attention deficit can adversely affect parental protection, reciprocity, control, and routines for children (Strand et al. 2020). Responsibility for care may be influenced by delusions or hallucinations (Bosanac et al. 2003). Social and cognitive deficiencies caused by schizophrenia may also affect parental sensitivity more severely than other psychiatric disorders (Mehta et al. 2013). Schizophrenic women may lack a social support network, often consisting of family, friends, community members, and other women (Hollingsworth 2004). Since mothers may not know how to better care for

their children, the above situation may lead mothers to be alone with the disorder and baby care.

Schizophrenic mothers often have difficulties in establishing relationships with their babies due to reasoning bias caused by the severity of the disorder (Garety et al. 2005), social cognitive disorders (Montag et al. 2007), presence of social stressors, stigma (Wan et al. 2008a), exposure to discrimination, lack of protective factors (social or spousal support) (Vauth et al. 2007). Mehta et al. (2013) found a significant positive link between the impairment in social cognition due to schizophrenia and the inadequacy in parental functionality. Moreover, the previous research revealed that mothers with schizophrenia are less sensitive, less reactive, and more avoidant to their infants than mothers with mood disorders (Wan et al. 2007, 2008b). Oyserman et al. (2004) carried out a study with 379 women and found that mothers with a history of significant psychiatric disorder had difficulties in satisfying their needs for nutrition, rest, treatment of the disorder (appointments, medication, and quiet time) when compared to the needs of their newborn babies, which was excavated by financial inadequacies.

Mothers may feel guilty because they cannot demonstrate their parenting skills and fear that they will transmit the disorder to their children. They may even stigmatize themselves since not deeming themselves worthy of motherhood (Dolman et al. 2013). They may think their child resembles them and get anxious that they may eventually become sick like them. All such undesirable situations may reduce the mothers' attempts to seek help for their difficulties and make them feel more alone. They also worry about their children being stigmatized because of them (Diaz-Caneja and Johnson 2004), which may put them into more trouble in the practical aspects of caregiving. They may have difficulty in establishing tactile contact with their children, resulting in poor interaction between mother and baby.

The postpartum is a particularly sensitive period for women with schizophrenia and their families (Matevosyan 2010, Vigod and Ross 2010). The first years when newborns are entirely dependent on their caregivers may also be stressful for parents with psychopathology. Thus, the early parenting period may pose significant vulnerability for the new-onset and/or recurrence of psychopathology. Besides, new mothers may stop medications and show non-compliance with the treatment since they are highly engaged in meeting their baby's needs and responding to their crying (Seeman 2010). The cessation of medication elevates the intensity of the disorder, and the non-compliance may exacerbate symptoms, which may result in rehospitalization and the risk of losing custody of their children (Busch and Redlich 2007). Overall, the mothers may lose the state of primary caregiver of their children. Even if such mothers have custody of their children, grandparents or other relatives actually raise the children, leading them to experience inconsistent upbringing practices.

The loss of custody may also be dependent on the course of the disorder and socio-demographic factors (socioeconomic status, employment, marital status), hospitalizations, quality of life, self-care status, social support, and side effects of drugs. In a study in Australia, the researchers concluded that the children of single schizophrenic mothers were more often taken under protection than the children of their married counterparts (Strega et al. 2008). Kumar et al. (1995) found that half of 100 schizophrenic mothers were discharged without their babies. Chermonas et al. (2000) stated that women with schizophrenia may experience profound and unending grief and anger when their children are taken under protection. In their study focusing on the experiences of 58 women receiving inpatient treatment and rehabilitation in a psychiatric rehabilitation center in Leicester, the UK, Dipple et al. (2002) determined that 68% of the women were separated from at least one of their children permanently and mourned the loss.

On the other hand, schizophrenic mothers also show a desire to establish meaningful relationships with their children despite the adverse conditions of the disorder (Montgomery et al. 2006). In the previous qualitative reserach, mothers diagnosed with schizophrenia mentioned the goal of being the best mother in their narratives (Montgomery 2005), and most of such women valued their motherhood roles (Khoshgoftar et al. 2021). Nevertheless, it is often thought that they will not be able to perform their roles competently (Alves et al. 2017) since schizophrenia can potentially cause functional problems in the mother-child relationship, as well as difficulties in adaptation to motherhood. In this context, it can be asserted that schizophrenic mothers may experience a conflict between the limitations in fulfilling parenting roles and responsibilities caused by the disorder and the desire to be a good mother. Interestingly, Cook and Steigman (2000) emphasize that child-raising should be recognized as a recovering factor for the mother rather than an obstacle to the treatment. Therefore, "having a child" may be considered a robust factor to promote recovery from schizophrenia.

Impacts of Maternal Schizophrenia on Child's Health

Children of mothers with schizophrenia are at risk for mental and functional problems (Dean et al. 2010). The interaction of adverse environmental conditions during pregnancy and postpartum with genetic factors may lead to mental health problems in children (Tarbox and Pogue-Geile 2008, Trotman et al. 2014). Schizophrenic women may have nutrition and

care-related problems, and these problems pose unprecedented risks to the health of the babies and their own health during pregnancy (Skórska and Makara-Studzińska 2020). Women with a diagnosis of schizophrenia are more prone to smoking, alcohol use, and other addictions, which naturally bring adverse impacts on fetal development (Fabre et al. 2021). Low socioeconomic status, being a member of an ethnic minority group, inadequate housing, a history of maternal substance abuse (Eaton et al. 2000), malnutrition (nutrition that cannot support the baby's optimal brain development), and environmental issues are among the factors that may increase the risks of the baby's future health problems (Liu et al. 2015). Thus, such factors may lead to several complications during pregnancy, delivery, and the postpartum period (Fabre et al. 2021).

Mothers may abuse or neglect their babies after delivery due to the severe effects of the disorder. The literature suggests that mothers may abuse their children after birth under the influence of various delusions, which may require the child to be taken under protection (Chandra et al. 2006). For example, a schizophrenic mother may avoid feeding their baby due to the malignant delusions inherent in the disorder, may not allow others to feed the baby for fear of poisoning them, or may unintentionally cause injury or death to the baby for the same reasons. Plant et al. (2002) found that the children of parents with schizophrenia are at risk for exposure to neglect and abuse. Therefore, it is considered necessary for child welfare institutions to adopt a protective approach toward such children. While mothers with schizophrenia may reject parenting or demonstrate inconsistent parental attitudes, some studies on the parent-child relationship showed that schizophrenic mothers may exhibit permissive or authoritarian parenting attitudes and decreased parental determination (Engur 2017, Mowbray et al. 2002).

Intra-familial conflicts often show up in families with schizophrenic individuals, and such conflicts pose a risk to children's social, emotional, and cognitive development (Vauth et al. 2007). The problematic and conflicting relationship between parents may hinder the development of children (Wynne et al. 2006). In this regard, these children are more vulnerable to social, cognitive, and psychological problems (Mowbray et al. 2006). Children with schizophrenic parents may also experience stigma, financial difficulties, and stress more than their peers (Wan et al. 2007). Ultimately, those growing up with schizophrenic parents engage in more interactions with damaging environmental factors and have more difficulty in accessing social protective support mechanisms than their peers with healthy parents. Webster (1992) examined families with schizophrenic mothers and determined that very few of the children growing up in such families received familial and professional support. However, the previous research showed that a protective environment is possible for children if mothers with this disorder do not have family conflicts but fruitful social support (Dunn 1993).

Interaction of Maternal Schizophrenia with Infant Attachment

The psychosocial development of infants is highly influenced by their social relationships with their caregivers. Most children first develop retention schemas for their mothers and then generalize them to other environmental stimuli. When there are problems in the interaction between the infant and the mother, the infant shifts their attention toward inanimate objects and experiences delays in acquiring permanence schemas. The first-year separation due to the mother's hospitalization may also prevent the child from acquiring object permanence. Early emotional experiences between the baby and the mother pave the way for developing emotion regulation skills in the following years (Denham et al. 2015). Emotional accessibility, maternal sensitivity to the baby's needs, and mother-infant harmony play a critical role in the baby's developing emotion regulation and cognitive skills (Cohn and Tronick 1989). Yet, maternal schizophrenia may ruin maternal sensitivity to the baby's needs. The previous research reported that women with schizophrenia cannot develop affection well with their babies (Riordan et al. 1999), may become alien to their babies (Cazas 2007), and may be intrusive and withdrawn, which lowers the quality of mother-infant interaction (Hipwell et al. 2000). Thus, maternal schizophrenia can disrupt the mother-infant relationship and the mother-infant harmony (Malhotra et al. 2015).

Babies and toddlers impulsively seek their caregivers when feeling danger. In this sense, "attachment" refers to the protective bond between the baby and the caregiver. Bowlby (1984) stated that attachment develops in the parent-child relationship in the early years of life. Attachment is considered in three types: secure, insecure, and avoidant/ambivalent attachment (Ainsworth et al. 2015). Later, these attachment styles were extended with "disorganized attachment."

The formation of a secure attachment is mediated by sensitive care to babies that support their optimal development. In this case, the parents can be qualified as a "safe home." While young children with a secure attachment may show only mild distress when separated from their mother or caregiver, insecurely attached toddlers may seem indifferent to the disappearance and reappearance of their mother or caregiver or may cling desperately to their mother at the time of separation. In anxious attachment, they may cry or hug their mother repeatedly when reunited. Insecure (avoidant or ambivalent) attachment is determined by shared

environmental factors (Fearon et al. 2006) and is particularly associated with low maternal sensitivity (Moran et al. 2005). Schizophrenia may cause low parental sensitivity in the mother. In the literature, it was previously determined that the babies of schizophrenic mothers show less attentive (Riordan et al. 1999) and more avoidant (Wan et al. 2007) attachment characteristics to environmental stimuli in the first four months. Babies can develop an insecure attachment style when turning 12 months old (D'Angelo 1986). Mothers' personality traits and child-rearing behavior are seen as the primary triggers of the insecure attachment of toddlers (Brook et al. 2003). Disorganized attachment is denoted as the caregiver's inability to organize a coherent strategy to comfort the child (Main and Hesse 1990). The mother's low parental sensitivity may cause weak interaction with the infant, paving the way for disorganized attachment (Wan et al. 2007). Moreover, psychotic disorders in children were previously associated with unresponsive, withdrawn, and non-baby-oriented interactions (Wan et al. 2008b). Insecure attachment in children of parents with mental disorders may cause low social competence (Schneider et al. 2001) in these children in later years. While healthy motherhood-specific attitudes and behavior contribute to the child's healthy, non-ambivalent attachment behavior, dysfunctional motherhood may cause weak or anxious attachment and a deterioration in the perception of the object and person permanence in the child.

Mother's positive (love, affection, happiness) and negative (anger, sadness, restlessness) emotions-oriented facial expressions play a role in the differentiation of attachment styles. Mothers with schizophrenia are more likely to put on facial expressions reflecting negative emotions or indifference to their babies. Infants have some ability to regulate negative arousal (e.g., looking away or thumb sucking), yet they are highly reflexive and have limited activity (Kopp 1982). A child who is repeatedly exposed to their parents' flat and negative affect in early face-to-face interactions may adopt a depressive interaction style characterized by flatter and more negative affect. Whereas facial expressions evoking acceptance and affection contribute to the child's developing a secure attachment style, those reflecting indifferent or negative emotions may cause the baby to develop an insecure and anxious attachment style and experience problems in emotion regulation skills.

Interventions for Problems Between Mothers with Schizophrenia and Their Babies

Prevalence of psychiatric health problems and a lack of psychosocial support programs are the major determinants in the decision to take the children of such mothers under protection. Schizophrenic parents who cannot benefit from effective interventions often lose custody of their children (Mason et al. 2007). Yet, such a heartbreaking situation can be avoided thanks to early interventions (Reupert and Maybery 2011).

Interventions for mothers with schizophrenia require a multidisciplinary team (gynecologist, psychiatrist, neonatologist, psychologist/psychological counselor, social services specialist, child development specialist, and nutrition specialist), an interdisciplinary intervention planning, implementation, and monitoring of the intervention. Finally, the evaluation phase should cover the biopsychosocial status of patients, (un)intended pregnancy, adherence to treatment, the interactions between disorder-treatment and mother-baby, mother's alcohol, smoking, and drug use, life stressors, mother's social support networks, home conditions, risk of exposure to violence, and self-care.

Psychosocial interventions for women with a pre-pregnancy diagnosis of schizophrenia. Counseling for schizophrenic women for contraception and pregnancy and peer support for pregnancy are considered important (Cook and Steigman 2000). Schizophrenia may show up with problems in social-cognitive skills, processing speed, cognitive flexibility, and motivation, which may all affect the parent-child relationship (Mehta et al. 2013). It was previously stated that psychosocial interventions aimed at reducing cognitive deficiencies and symptoms (e.g., cognitive and behavioral therapies, family therapy, and life and social skills training) may help overcome social cognitive deficits (Turkington et al. 2004). In their study, Eack et al. (2011) determined that cognitive improvement interventions to improve processes such as memory, attention, and problem-solving may be helpful.

Psychosocial interventions for women with a prenatal diagnosis of schizophrenia. Liu et al. (2015) summarized them as increasing prenatal care, education to improve parenting skills, improving social support, reducing cognitive disability and symptoms, and creating family-centered care. Pregnant women with schizophrenia may face several obstacles to accessing prenatal care and treatment due to the nature of the condition (refusing to visit the hospital, non-compliance with prenatal care plans) and environmental factors (spousal or familial insensitivity to prenatal treatment and care, geographical limitations in accessing healthcare services, socioeconomic insufficiencies) (Liu et al. 2010). Enhancing prenatal care includes improving nutrition (contributing to the development of the fetus and the mother's health), reducing stressors, facilitating access to healthcare services, and structuring the pregnancy follow-up considering the disorder and its treatment. To eliminate the barriers, it seems needed to ensure coordination between mental health services, women's reproductive health services, and medical and psychiatric social services within primary

healthcare services. Compliance with the treatment of schizophrenia during pregnancy may not be sustained, which may induce disruptions in self-care. To ensure complete self-care, the mother should benefit from professional care services during the prenatal period.

Interventions focusing on postpartum mother-infant interaction. Various interventions focusing on mother-infant interaction can also be effective in overcoming disorder-oriented difficulties. Interventions to facilitate mother-child attachment offer opportunities for preventive work for children at risk (Craig and Bromet 2004).

Reducing the mother's symptoms may help the mother-child relationship (Kahng et al. 2008). As well as interventions to reduce the symptoms, parenting education, counseling for mothers and their families, parenting coaching for mothers, and parent support groups can also be shown among the relevant interventional practices. Through group work, Deane et al. (2012) observed progress in the social relations of schizophrenic individuals' social relationships. As essential interventions, Cook and Steigman (2000) pointed out assessing parents' strengths and needs to maintain the mother-child relationship, counseling on social benefits and entitlements, self-help, support groups and medication management for children, and housing support for homeless or low-income mothers. Moreover, training on how to support mothers with schizophrenia may be effective in maintaining healthy mother-infant interaction after delivery and developing parenting skills. Waldo et al. (1987) previously concluded that schizophrenic mothers could acquire mothering skills through parenting skills programs. It was reported in the literature that such programs can also play an active role in developing necessary parenting skills and capacity (Wan et al. 2008b). In addition, interventions to increase maternal sensitivity are considered important (Velderman 2011) since they aim to create behavioral sensitivity among mothers through observation and modeling facilitated by video-based feedback. In their study, Juffer et al. (1997) suggested that video-based feedback can be effective in increasing maternal sensitivity.

Massage is among the most convenient and natural ways to allow touch and eye contact, nourishing the mother-infant bond (Gürol and Polat 2012). Therefore, infant massage therapy can also help healthy interactions between schizophrenic mothers and their infants. Onozawa et al. (2001) stated that mothers massaging their babies experience enhanced interactions with their babies. Infant massage therapy presents an approach focusing on how mothers should interpret their babies' reactions to touches (Wan et al. 2008b). Infant massage can help mothers with the disorder overcome the avoidance of touching their babies. In this process, teaching professional child care to mothers is likely to mediate overcoming the relational difficulties between the mother and the baby.

The family-oriented care system, as well as individualized care plans, prioritize the needs of children, parents, and extended families and contribute to healthy interactions of schizophrenic mothers with their babies. Accordingly, family-centered comprehensive care (antenatal, primary, psychiatric, and pediatric care) includes satisfying practical, daily life needs (counseling and advocacy on economic and legal issues, access to housing and transportation services, and academic and vocational assistance), crisis management, and counseling (Cook et al. 2014). In the literature, family-centered care interventions are shown as effective interventions for parent-child relationships (Guttentag et al. 2006). The family-centered care system is strength-based, requires continuous assessment, and encourages cultural sensitivity and collaboration between families and professionals, as well as other relevant institutions and services (child and family welfare services and health care, etc.). Family-centered comprehensive care, targeting the social functionality of parents, can also contribute to the treatment process of schizophrenic mothers, the safety of children, family welfare, and reducing risks for children. Working with schizophrenic mothers requires a collaboration of child welfare services and mental health and care services and considering and responding to the needs of both mothers and babies. Parenting programs that emphasize mothers' strengths and reduce stigma can also help motivate behavior change. Integrating family-centered care, including social cognitive interventions, and schizophrenia treatment may function well in reducing various risk factors arising from the disorder (e.g., child neglect and abuse, obstacles to the healthy development of children), increasing mothers' compliance with treatment as well as their parenting skills and capacity. Overall, family-centered, strengths-based, emotionally supportive, and comprehensive approaches are highly needed, including crisis response and fundamental services, while working with schizophrenic mothers (Reupert and Maybery 2007).

The lack of social support among mothers with schizophrenia may exacerbate the difficulties in the mother-infant relationship. In this context, group-based practices may be useful in preventing social isolation and reducing stigma. Increasing social support also includes reducing the stress and conflict between the mother with schizophrenia and her spouse and increasing the parenting capacity (Abel et al. 2005). Support groups (Fleming et al. 1992), counseling (Murray et al. 2003), and home visits by social workers (Gelfand et al. 1996) are among the practices to increase social support for such mothers. Fallon et al. (1982) determined that counseling to the families of individuals with schizophrenia might prevent the recurrence of the disorder. The importance

of community-based programs was also highlighted in the literature (Nicholson and Miller 2008).

Community-based interventions. Community-based rehabilitation for pregnant women or new mothers with schizophrenia and their families is accepted as another important intervention area. The WHO emphasizes structuring treatment and psychosocial interventions for individuals with schizophrenia to include community-based rehabilitation (WHO 2008, Brooke-Sumner et al. 2015). Interventions with community-based rehabilitation cluster around health, education, access to socioeconomic resources, and socialization (WHO 2010). The contribution of community-based psychosocial interventions to the treatment of schizophrenia was previously documented in studies in Sri Lanka, India, and Bangladesh (Raja et al. 2008). Community-based interventions increase the quality of life of schizophrenic mothers and help their families manage the process before and after birth. It also encourages such mothers to overcome loneliness and stigma through social integration with their families.

Conclusion

Ensuring the implementation of advanced childcare is a prioritized public health strategy across the world. In this sense, it is also needed to adopt practices to ensure healthy interaction between schizophrenic mothers and their children and to prevent relevant risk factors. It is imperative to develop intervention programs for mothers with schizophrenia to involve them in treatment and rehabilitation processes. Thus, further research is needed to scrutinize the efficiency of massage therapy, family-centered approaches, and social cognitive skills training among mothers with schizophrenia.

The above-mentioned mental health services should focus on the families with schizophrenic mothers in terms of uncovering the status of the mothers and their children (under protection or growing up with their mothers). With a holistic approach to the biopsychosocial characteristics and the interactions of schizophrenic mothers with their children and the environment, applied research is highly needed to contribute to the prevention, treatment, and rehabilitation of families, schizophrenic mothers, and their children to maintain a healthy mother-child relationship. Childbirth is likely to create a crisis for schizophrenic mothers and their families. Hence, it seems valuable to provide such mothers with family health services, to generate a plan for the crisis, to document daily parenting activities, and to inform families about the situation of the mother and baby and legal issues.

From a macro perspective, influential prevention works may need increased cooperation between child and family welfare institutions and adult mental health services. The literature extensively suggests that community mental health centers are the headquarters of works on the psychosocial development of children and improving parenting skills and capacity (Çiçekoğlu and Duran 2018). Moreover, psychoeducational practices and counseling services may be offered within psychosocial interventions for expectant or new mothers diagnosed with schizophrenia, their spouses, and families. In this regard, future studies may investigate implementation models for interventions to ensure schizophrenic mothers have access to relevant services, help them with care for their children, and allow children to grow and develop within their families and communities.

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