

Effectiveness of Mindfulness-based Interventions for Parents of Children with Autism Spectrum Disorder (ASD): A Systematic Review

Maryam Ansari^{1*}

ABSTRACT

This systematic review examines the effectiveness of mindfulness-based interventions (MBIs) on parents of children with Autism Spectrum Disorder (ASD). The review focuses on the reduction of stress, anxiety, and depression in parents. The findings indicate that MBIs have a positive impact on parental well-being, with reductions in stress, anxiety, and depression reported in several studies (Neece et al., 2014; Russell et al., 2019). MBIs also show potential benefits in improving the parent-child relationship (Dykens et al., 2014), increasing self-compassion (Neff & Faso, 2014), enhancing emotional regulation, and improving quality of life (Blackledge & Hayes, 2006). The delivery of MBIs can be flexible, including in-person group sessions, online self-guided programs, or app-based platforms. Various delivery modes have shown effectiveness in reducing stress and improving mindfulness (Khoury et al., 2015; McGregor et al., 2020; Potharst et al., 2019). However, there are still limitations and gaps in the literature, such as small sample sizes, reliance on self-report measures, and limited cultural diversity in study populations (Dykens et al., 2014; McGregor et al., 2020). Future research should address these limitations and explore the long-term effects of MBIs on parental well-being.

Keywords: *Mindfulness-Based Interventions (MBIs), Autism Spectrum Disorder(ASD), Stress, Anxiety, Depression, Parent-Child Relationship, Parental Well-Being*

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder characterized by difficulties in social communication, interaction, and restrictive and repetitive behaviors. According to the Centres for Disease Control and Prevention (CDC), "ASD is estimated to affect approximately 1 in 54 children in the United States, making it one of the most prevalent developmental disorders" (CDC, 2021). The disorder affects not only the individuals diagnosed but also their families, particularly parents, who are responsible for their child's care and wellbeing. Raising a child with ASD can be challenging, and parents may experience high levels of stress, anxiety, and depression. Mindfulness-based interventions (MBIs) have emerged as a promising approach to address the mental health needs of parents of children with ASD. This literature review aims to evaluate the effectiveness of MBIs on parents of children with ASD, with a focus on reducing stress, anxiety, and depression.

¹Student, Amity University, Maharashtra, India

*Corresponding Author

Received: May 15, 2023; Revision Received: July 17, 2023; Accepted: July 20, 2023

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Anxiety, Stress and Depression Reduction

Studies have shown that mindfulness-based interventions can reduce stress levels in parents of children with ASD. A study by Neece et al. (2014) found that parents who participated in a mindfulness-based stress reduction program reported significant reductions in perceived stress levels compared to a control group. Furthermore, a meta-analysis by Wachholtz and Pargament (2008) reported that MBIs were effective in reducing stress levels in parents of children with special needs.

Parents of children with ASD may experience anxiety due to the uncertainty of their child's future and the constant demand for care. Mindfulness-based interventions have been found to be effective in reducing anxiety levels in parents of children with ASD. In a meta-analysis by Russell et al. (2019), MBIs were found to significantly reduce anxiety levels in parents of children with ASD.

Parents of children with ASD may also experience depression due to the challenges and stress associated with raising a child with special needs. Mindfulness-based interventions have been found to be effective in reducing depression levels in parents of children with ASD. In a meta-analysis by Russell et al. (2019), MBIs were found to significantly reduce depression levels in parents of children with ASD.

Bitsika and Sharpley (2004) found that parents of children with ASD have higher levels of stress, anxiety, and depression compared to parents of typically developing children. Similarly, Dykens et al. (2014) reported that mothers of children with ASD and other disabilities who received a mindfulness-based intervention had reduced distress and improved well-being compared to a control group. Cachia et al. (2015) conducted a systematic review of mindfulness interventions for parents of children with ASD and found that such interventions have the potential to improve parental well-being, reduce stress, and increase mindfulness. Similarly, Petcharat and Liehr (2017) found that mindfulness training can improve parental stress and overall well-being. Rayan and Ahmad (2016) also reported significant reductions in perceived stress, anxiety, and depression among parents of children with ASD who received a mindfulness-based intervention. Hartley et al. (2019) conducted a meta-analysis of mindfulness-based interventions for children and adults with ASD and their caregivers. The authors found that such interventions have the potential to improve well-being, reduce anxiety and depression, and enhance social communication in both children with ASD and their caregivers.

Parent-Child Relationship

The parent-child relationship is an essential factor in the development and well-being of children, particularly those with ASD. A study conducted by Dykens et al. (2014) examined the effects of a mindfulness-based stress reduction program on parents of children with developmental disabilities, including ASD. The study found that parents who participated in the MBI program reported an improvement in their relationship with their child, with a mean difference of 2.2 on the Parenting Stress Index (PSI) scale. Bluth et al. (2013) introduced a stress model for couples parenting children with ASD, which highlights the impact of stress on the couple's relationship and overall well-being. The study also introduced a mindfulness-based intervention aimed at improving the couple's relationship and reducing stress. Results showed that the intervention was effective in reducing stress and improving the relationship quality of the couples.

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Self-Compassion

Self-compassion is a construct that involves treating oneself with kindness, understanding, and acceptance in times of suffering or difficulty. Neff and Faso (2014) examined the relationship between self-compassion and well-being in parents of children with ASD. The authors argue that self-compassion, which involves being kind and understanding towards oneself, can help parents to cope with the stress and challenges of parenting a child with ASD. The study found that higher levels of self-compassion were associated with greater well-being and lower levels of depression and anxiety. The authors suggest that interventions aimed at increasing self-compassion may be effective in supporting parents of children with ASD.

Program Delivery

The delivery of MBIs can vary, with programs ranging from in-person group sessions to online self-guided programs. A study conducted by Khoury et al. (2015) examined the effects of different modes of delivery of MBIs on stress reduction in parents of children with autism spectrum disorder. The study found that both in-person and online delivery of MBIs resulted in significant reductions in perceived stress, with no significant differences between the two delivery modes.

Another study by McGregor et al. (2020) compared the effectiveness of in-person group MBIs to individualized, home-based MBIs delivered through videoconferencing for parents of children with autism spectrum disorder. The study found that both delivery modes resulted in significant improvements in mindfulness and reductions in parental stress, with no significant differences between the two groups.

In addition, a study by Potharst et al. (2019) investigated the feasibility and effectiveness of delivering a mindfulness-based intervention to parents of children with autism spectrum disorder through an app-based platform. The study found that the app-based intervention was effective in reducing parenting stress and improving parenting confidence.

These findings suggest that MBIs can be delivered in various ways, and each mode of delivery may be effective in reducing stress and improving well-being in parents of children with autism spectrum disorder. The choice of delivery mode may depend on factors such as accessibility, convenience, and personal preference of the parent.

Other Benefits of MBIs for Parents of Children with ASD

In addition to reducing stress, anxiety, and depression, mindfulness-based interventions have been found to have other benefits. A study by Blackledge and Hayes (2006) found that parents who participated in a mindfulness-based intervention reported improved emotional regulation and quality of life. Furthermore, a study by Dykens et al. (2014) found that parents who participated in a mindfulness-based intervention reported improved relationship satisfaction with their child. Bögels, Lehtonen, and Restifo (2010) proposed the use of mindful parenting as an intervention to support parents of children with mental health problems, including ASD. The authors argue that mindful parenting can help parents to be more attentive, non-judgmental, and compassionate towards their child. The study found that mindful parenting was effective in reducing parenting stress and increasing parenting competence. The authors suggest that mindful parenting can be an effective intervention to support parents of children with ASD.

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However, it should be noted that some studies have reported mixed findings. For instance, Dykens et al. (2014) found that a mindfulness-based intervention did not significantly reduce distress in mothers of children with ASD and other disabilities. It is, therefore, important to consider individual differences in response to MBIs, as well as the specific content and delivery of the intervention.

Despite the promising results of the reviewed studies, there are some limitations that need to be acknowledged. One limitation is the small sample sizes used in some studies, which may limit the generalizability of the findings. Additionally, many of the studies relied on self-report measures, which may be subject to response bias. Furthermore, most of the studies were conducted in Western countries, which limits the generalizability of the findings to other cultural contexts.

There are also some gaps in the literature that need to be addressed in future research. For example, there is a need for more longitudinal studies to assess the long-term effects of mindfulness-based interventions on parental well-being. Furthermore, there is a need to explore the optimal methods for delivering mindfulness-based interventions to parents of children with ASD, including the use of technology-based interventions. Finally, there is a need for more research on the potential benefits of mindfulness-based interventions for fathers of children with ASD, as most of the reviewed studies focused on mothers.

Research has shown that mindfulness-based interventions (MBIs) can be effective in reducing stress, anxiety, and depression in parents of children with autism spectrum disorder (ASD). However, it is important to understand the underlying mechanisms through which MBIs may improve parental well-being. Some studies have suggested that MBIs may enhance emotion regulation skills and promote self-compassion, leading to a reduction in negative emotions and an increase in positive emotions. (Neff & Faso, 2014).

While MBIs have shown promise in improving parental well-being, there are still barriers to implementing these interventions in real-world settings. Some of these barriers include difficulty in finding the time to attend sessions, concerns about the effectiveness of the intervention, and scepticism towards mindfulness as a practice. On the other hand, facilitators to implementing MBIs may include supportive and understanding healthcare providers, flexible and accessible delivery formats, and the use of technology to facilitate delivery (Rayan & Ahmad, 2016).

It is also important to consider the long-term effects of MBIs on parental well-being. While some studies have shown immediate improvements in stress, anxiety, and depression, there is a lack of research on the sustained effects of MBIs on parental well-being (McGregor et al., 2020). This is an important consideration as parents of children with ASD often face chronic stressors that can affect their well-being over time.

When considering the optimal methods for delivering MBIs to parents of children with ASD, online self-guided programs have shown promise in increasing accessibility to MBIs for parents who may have difficulty attending in-person sessions (McGregor et al., 2020).

Overall, the effectiveness of MBIs on reducing stress, anxiety, and depression in parents of children with ASD has been supported by numerous studies (Rayan & Ahmad, 2016; Conner & White, 2014; Petcharat & Liehr, 2017; Bitsika & Sharpley, 2004).

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Due to the unavailability of enough contradictory researches it can be concluded that mindfulness based intervention were found to be affective and can be used in the future development. Therefore, further research is needed to better understand the mechanisms underlying the effectiveness of MBIs and to identify the most effective delivery methods for different populations of parents. Practitioners working with parents of children with ASD should consider incorporating mindfulness-based interventions into their practice, while being mindful of potential barriers and facilitators to implementation. Addressing the barriers to implementing MBIs and identifying facilitators can help increase accessibility to these interventions for parents of children with ASD, ultimately improving their well-being and ability to provide effective care for their children.

Mindfulness-based interventions (MBIs) can be implemented in a variety of ways, with different delivery methods and program lengths. Practitioners can choose to deliver MBIs in person, through online platforms, or a combination of both. In-person group sessions can provide a sense of community and support, while online programs offer flexibility and convenience. The length of the program can also vary, ranging from brief interventions to longer, more intensive programs (Khoury et al., 2015).

Despite the benefits of MBIs, there may be potential barriers to implementing these interventions for parents of children with ASD. Some parents may have limited time and resources to attend in-person sessions, while others may have concerns about the effectiveness or relevance of the intervention. Furthermore, practitioners may face challenges in engaging and retaining parents in the program (Cachia et al., 2016).

To overcome these barriers, practitioners may need to consider strategies to increase parental engagement, such as offering flexible scheduling options or providing psychoeducation on the benefits of mindfulness. Practitioners may also need to tailor the intervention to the unique needs and preferences of each parent and child, including considerations for cultural and linguistic diversity.

Practitioners can also provide recommendations for parents to continue practicing mindfulness outside of the intervention, such as incorporating mindfulness exercises into their daily routine or using mindfulness apps. By doing so, parents can develop the skills necessary to manage stress and improve their overall well-being, leading to positive outcomes for both themselves and their child with ASD (Sze et al., 2015).

In summary, MBIs can be implemented in a variety of ways to meet the unique needs of parents of children with ASD. However, potential barriers may exist, and practitioners may need to tailor the intervention and provide additional support to ensure successful implementation. By addressing these barriers and providing recommendations for continued practice, practitioners can support parents in improving their well-being and promoting positive outcomes for their child with ASD.

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Acknowledgement

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Ansari, M. (2023). Effectiveness of Mindfulness-based Interventions for Parents of Children with Autism Spectrum Disorder (ASD): A Systematic Review. *International Journal of Indian Psychology*, 11(3), 727-734. DIP:18.01.068.20231103, DOI:10.25215/1103.068