



# IMPACT OF OCCUPATIONAL THERAPY INTERVENTIONS ON SOCIAL PARTICIPATION AND BEHAVIORAL OUTCOMES ON CHILDREN WITH AUTISM SPECTRUM DISORDER IN KENYA

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## PROBLEM STATEMENT

Many OT interventions used in Kenya are adapted from Western models without sufficient local validation. Additionally, limited studies have explored how OTs in Kenya perceive and implement these interventions, as well as their knowledge and use of EBPs (Evidence Based Practice) specific to Autism Spectrum Disorder (ASD). Understanding these gaps can help tailor more effective and culturally relevant interventions for children with ASD in Kenya.

## BACKGROUND

Autism Spectrum Disorder (ASD) is a neurodevelopmental condition affecting social interaction, communication, and behavior (Park et al., 2020). Children with ASD often struggle with social participation and display behavioral challenges that hinder their integration into family, school, and community settings (Smith et al., 2023). Various evidence-based interventions (EBIs), such as Naturalistic Developmental Behavioral Interventions (NDBI), Early Intensive Behavioral Intervention (EIBI), Sensory Integration Therapy (SIT), and Cognitive Behavioral Therapy (CBT), have shown effectiveness in enhancing social engagement and reducing disruptive behaviors (Sandbank et al., 2023; Yim, 2021). However, in Kenya, the use and effectiveness of these interventions remain underexplored, necessitating further research to identify the most effective and culturally relevant occupational therapy (OT) interventions.

Objective: To evaluate the current literature on the Impact of OT interventions on social participation, and behavioral outcomes in children with ASD and seek ways to implement EBP in the local context.

### PICO Question

In children with Autism Spectrum Disorder (ASD), how effective are EBP occupational therapy interventions in improving social participation, behavioral outcomes, and play?

- **P (Population):** Children with Autism Spectrum Disorder (ASD) in Kenya
- **I (Intervention):** Occupational therapy (OT) interventions (e.g., Sensory Integration Therapy, Cognitive Behavioral Therapy, Naturalistic Developmental Behavioral Interventions)
- **C (Comparison):** Children with ASD who do not receive structured OT interventions
- **O (Outcome):** Reduction in disruptive behaviors and increased social participation(e.g., decreased self-stimulatory actions, improved emotional regulation

## LITERATURE REVIEW RESULTS

According to the literature review the following are EBP approaches that have been shown to be effective in addressing social and behavioral concerns with children with ASD.

**Social Participation** – It has been found by Goldingay et al. (2020) that significant improvements in social interactions and participation in group activities were a result of specific OT interventions. Goldingay et al. (2020) reports that Social Skills Group therapy sessions were utilized using role playing and social stories (Learning to Play Therapy approach). Goldingay et al. (2020) further reports that the approach resulted in increased confidence in social engagement as measured by improvement in relationship from poor to better. It was also reported that the Learning to Play Therapy approach produced better results than Cognitive Behavioral Therapy.

Social Skills Training, like use of peer interaction opportunities in a structured setting, was noted to be very effective in improving social participation of youth with ASD. (Smith et al., 2023) And according to Park et al. (2020) with home environmental modifications, task and feedback among other interventions taught to families there was an improvement in social participation and reduction of M-CHAT-R/F scores.

**Behavioral Outcomes** – According to Goldingay et al. (2020) Group Therapies such as Cognitive Behavioral Therapy(CBT) were used and they helped in maintaining cognitive flexibility. Loh et al. (2023) stated that there is behavior improvement when OTs use Auditory Filtering and potentially when they combine Sensory Processing techniques with other forms of play or social integration techniques, bot not as a stand alone intervention.

Sensory based gross motor activities (ie: swimming, dancing, gross motor play) being used with children with ASD resulted in an increased regulation which lead to improved social behavioral outcomes. (Lin, 2020) According to Sandbank (2023) behavioral intervention focuses on modifying behavior through reinforcement and structured teaching which showed significant positive effects on challenging behaviors.

**Play** – As by Goldingay et al. (2020) and Smith et al. (2023) Play Based Interventions guided by play sessions with toys and interactive games were shown to enhance play skills and creativity. As for Loh et al. (2023) SI incorporated with play based activities encouraged interaction and curiosity.

## METHODOLOGY

A descriptive study design (currently awaiting Institutional ethical review) using survey research will be used to understand how OT interventions influence social participation and behavioral outcomes in children with ASD. This descriptive approach will provide an in-depth understanding of OTs' experiences, perceptions, and the impact of specific interventions.

Survey research will be used in this study. The questionnaire used will be piloted on five Occupational Therapists to assess for clarity and understanding of each question. The study won't prove direct causation like an experiment, it will gather insights from therapists on the changes they observe in children after therapy sessions. This will help identify effective therapy practices already being used for ASD. The survey will also seek to understand the knowledge OTs have on EBP techniques.

### Data Analysis

Descriptive statistics will be used to describe the survey results. Data will be analyzed through Microsoft Excel.

Open-ended responses will be analyzed thematically to identify frequent themes regarding effective OT interventions.

The analysis will focus on:

- How current OT interventions impact social skills and behavior
- Common challenges and successes in therapy
- Therapists' perspectives on effective strategies
- Therapists' knowledge of EBP techniques being used in other contexts

The findings will be grouped into themes to help understand the relationship between OT interventions and behavioral outcomes/social participation. This will provide insights into best practices for improving therapy approaches for children with ASD in Kenya.

## PLAN FOR DATA USAGE

- Once the data is collected and analyzed, the findings will be used to:
- 1.**Identify Effective OT Strategies** – Highlight the most impactful occupational therapy (OT) interventions already being utilized for improving social participation and reducing disruptive behaviors in children with ASD, and compare their effectiveness to EBP approaches in the literature.
  - 2.**Develop Recommendations** – Provide evidence-based recommendations for therapists to enhance intervention approaches in Kenya.
  - 3.**Inform Future Research** – Identify gaps and areas needing further study to strengthen OT practices for children with ASD.
  - 4.**Support Policy and Practice** – Share insights with healthcare institutions, OT professionals, and policymakers to improve ASD intervention programs.
  - 5.**Disseminate Findings** – Present results through reports, publications, or workshops to educate therapists and other stakeholders on best practices.

## PLAN FOR DISSEMINATION

- To ensure the study's findings benefit occupational therapists and improve ASD interventions, the results will be shared through:
1. **Workshops and Training Sessions** – Organizing professional development sessions for therapists to learn and discuss effective OT strategies for children with ASD.
  2. **Conferences and Seminars** – Presenting key insights at OT or healthcare conferences.
  3. **Collaboration with OT Organizations** – Partnering with OT associations in Kenya like KOTA (Kenya Occupational Therapy Association) or OTCoK (Occupational Therapy Council of Kenya) to distribute findings and integrate them into practice guidelines.
  4. **Digital Platforms** – Sharing summaries through online forums, or webinars to engage a broader community of therapists and caregivers.

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References  
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