SESSION 4

Parent-Mediated Tele-Intervention in India: Overcoming Challenges and Embracing Opportunities

Dr. Shoba Meera & Dr. Gauri Divan

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Course Materials

The purpose of these materials is to help provide an introduction to the INSAR Institute session. The materials were designed to prepare students and trainees who are unfamiliar with this research with the general background to receive the most educational benefit from the session. Toward this objective, we have prepared the following: (1) learning objectives for this session, (2) key terms and concepts, (3) a selection of recommended resources. These materials are considered supplemental to the presentation.

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**Learning Objectives**

The INSAR Institute for Autism Research was established in direct response to requests from students and trainees for multidisciplinary training opportunities. The INSAR Institute team is also working to engage stakeholders. The INSAR Institute's priorities are to provide a (1) freely available, (2) multidisciplinary training platform for young scientists and others from various backgrounds that (3) allows for international participation.

The overarching goal of the INSAR Institute is to expose junior scientists to topics they are not currently engaged in, with the hope that basic scientists and clinical scientists may learn from each other to ultimately advance the understanding of autism. This year, the series is aimed at adopting a global perspective to showcase similarities and differences in the process of conducting autism research across a number of geographic locations and fields of research, including neuroscience, psychology, and public health.

This session, on Parent-Mediated Tele-Intervention in India: Overcoming Challenges and Embracing Opportunities, is presented by Dr. Shoba Meera and will be discussed by Dr. Gauri Divan. *At the conclusion of this session, participants will:*

1. **Identify** the opportunities and challenges in designing early intervention research delivered via online modality amidst India's rich cultural and linguistic diversity and lower-middle-income landscape.
2. **Learn about** study designs and importance of feasibility RCTs in research.
3. **Understand** the vital role parents, self-advocates and other stakeholders play in intervention development, delivery, and work dissemination.

**Key Terms/Concepts**

**Parent-mediated tele-intervention (PMTI)**

In a parent-mediated intervention (PMI), strategies or targets are demonstrated to parents who then transfer these skills to their child. One way to deliver such an intervention is synchronously via online/tele-modality, using video conferencing platforms such as Zoom. In the talk, we will refer to a PMI being delivered online as parent-mediated tele-intervention (PMTI).

**Video feedback & Demonstration**

Parent-mediated intervention can be delivered through various methods. The PMTI that will be discussed in the talk involves a combination of two methods. (1) Video feedback: Here, video recordings of parent-child interactions during play and daily routines are jointly viewed by parents and interventionists (Aldred et al., 2018). Parents then receive feedback about the
interaction. (2) Live demonstrations: Here the interventionist demonstrates different strategies using toys and other example activities.

**Naturalistic developmental behavioral intervention (NDBI)**

The NDBI principles combine theoretical bases of behavioral psychology and developmental science. It emphasizes the importance of a naturalistic learning environment for intervention (Schreibman et al., 2015). The PMTI being discussed in the talk is based on NDBI principles and is designed to empower parents to provide rich learning contexts via play and in everyday routines.

**Parent sensitive responsiveness**

Parent responses that are contingent and congruent to their child’s behaviors in ways that nurture emotion regulation, social functioning, cognition and learning in their child is referred to as parent sensitive responsiveness (Wan et al., 2016). This has been used as an outcome measure for PMIs (e.g., Green et al., 2015, Watson et al., 2017).

**Infants at high familial likelihood for ASD and Intervention**

Infant siblings of autistic children are at high familial likelihood (~40-50%) to receive a diagnosis of autism or related developmental delays (Constantino et al., 2010; Ozonoff et al., 2011; Georgiades et al., 2013). Preliminary evidence suggests merits in providing very early support to these infants, through parent-mediated interventions, even prior to receiving a formal diagnosis (Green et al., 2015; Yoder et al., 2020).

**Feasibility Randomized controlled trial**

Randomized controlled trials are prospective longitudinal studies that randomly allocate participants into intervention and control group. This reduces bias and provides a rigorous tool to examine cause-effect relationships between an intervention and outcome (Hariton & Locascio, 2018). Hence, RCTs are considered the gold standard to measure the efficacy or effectiveness of an intervention or treatment. Feasibility RCTs on the other hand, do not primarily focus on the efficacy of an intervention but are designed to support the development of a definitive RCT (Eldrige et al., 2016). That is, they are designed to determine if it is practically possible to conduct a particular study and what measures/modifications must be made in order to successfully carry out such a study. As RCTs can be quite demanding of resources and do not permit any modification to the committed methodology, there is merit in first conducting feasibility studies prior to commencing a definitive RCT. The talk will focus on a feasibility RCT study employing quantitative and qualitative methods.

**Thematic analysis**

This is a method of qualitative analysis that involves examining data, such as transcripts of interviews, to find specific patterns or themes. This can be of two types, (1) inductive, which allows the data to prospectively determine the themes and (2) deductive, which approaches the data with a structured codebook containing predetermined expected to appear in the data (Braun & Clarke., 2006).
Cultural context of India
India is culturally and linguistically diverse, with 1.4 billion people spread across 28 states and 8 union territories, each with its own languages, cultures, and subcultures. It has 22 official languages and over 121 identifiable languages and countless dialects (GoI Census, 2011). A significant portion of the population is bi/multilingual. Despite the diversity, a common thread is the family-centric nature of the people. This diversity poses challenges but also offers exciting possibilities for tailor-made interventions that suit this context.

Recommended Readings & References for Key Terms


