CASE STUDIES USING SOCIALLY ASSISTIVE ROBOTICS WITH PEDIATRIC CLIENTS

ASHA CE APPROVED PROVIDER

Pennsylvania Speech-Language-Hearing Association

Introductory Level

.05 ASHA CEUs

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Learning Objectives:

- Summarize recent research findings regarding the role of socially assistive robotics in the field of SLP.
- Explain the qualitative methodology used to analyze various sessions with and without a socially assistive robot.
- Identify potential effects of the use of a socially assistive robot during SLP treatment sessions based on the case studies discussed.

NAVIGATING UNCHARTED WATERS

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POCONO MANOR, PA

Course Abstract

This session will explore how the inclusion of Socially Assistive Robotics (SAR) in speech-language pathology (SLP) therapy sessions affects treatment outcomes via an in-depth analysis of individual pediatric cases. SAR, which aims to assist people in learning and rehabilitation through social interaction, has shown promise in various healthcare and educational settings, targeting skills such as joint attention, collaborative play, body awareness, and eye gaze (Amirabdollahian et al., 2014; Costa et al., 2015; Feil-Seifer & Mataric, 2005, Sani-Bozkurt & Bozkus-Genc, 2020; Wainer et al., 2014). Research especially emphasizes the effectiveness of SAR use with children who have Autism Spectrum Disorder (ASD), facilitating skills such as turn-taking, imitation, and emotional recognition (Sani-Bozkurt & Bozkus-Genc, 2020; Simut et. al., 2016). Although recent studies indicate promising findings, the research on the implementation and effectiveness of SAR use within the field of SLP is limited and requires further investigation. Our lab has implemented SAR with various clients at the Misericordia University Speech-Language and Hearing Center. As part of an ongoing study, clients alternate sessions with and without the SAR, which are then recorded and qualitatively analyzed to determine (1) differences in client outcomes with and without an SAR, and (2) suggestions for facilitative clinician behaviors to successfully implement an SAR when addressing expressive language. In this presentation, we will discuss selected clients as specific case studies to investigate the impact of SAR on their treatment outcomes. These results could help clinicians more effectively utilize SAR with clients who have expressive language delays and disorders and potentially improve intervention results for general SAR-assisted therapy.

Speaker Bios

Sara Lombardi is a graduate student at Misericordia University. She has worked on research studies regarding diversity, equity, and inclusion, socially assistive robotics, and learning in the field of speech-language pathology. She has presented findings at state, national, and international conferences.

Michaela is a graduate student at Misericordia University. She has completed research studies regarding learning and Socially Assistive Robotics (SAR) in the field of speech language pathology, and has presented findings at state, national, and international conferences.

Erin Roberts is an assistant professor in the department of Speech-Language Pathology at Misericordia University, as well as a doctoral student at Johns Hopkins University studying Mind, Brain, and Teaching. She has completed various research studies in neuroimaging, motor learning, voice, fluency, and clinical education, and has presented findings at state, national, and international conferences. Erin was also awarded Best Poster at the 2015 Fall Voice Conference.

Kara is a graduate student at Misericordia University. She has completed research studies regarding learning and Socially Assistive Robotics (SAR) in the field of speech-language pathology and has presented findings at state, national, and international conferences.

Victoria Slusark is an undergraduate student at Misericordia University. She has completed research studies in the areas of Socially Assistive Robotics (SAR) and Gestalt Language Processing (GLP) in the field of speech-language pathology, and has presented findings at national conferences.

Lori Cimino, M.S., CCC-SLP, has focused her practice on pediatric speech-language pathology with emphasis in child language disorders, childhood apraxia of speech, autism, oral-motor dysfunction, and behavioral/sensory-motor based feeding disorders in the outpatient rehabilitation setting. She currently serves as Associate Professor and Clinical Director in the Speech-Language Pathology Department at Misericordia University.

Adina Rosenthal is an Assistant Professor and the Online Clinical Coordinator at Misericordia University in Dallas, Pennsylvania. She has supervised graduate students in the on-campus clinic during their clinical and diagnostic rotations. She is the clinical coordinator of the online program- for both national and international students. She has led graduate students on service trips to Belize, providing sustainable education through an interprofessional experience with physical and occupational therapists from other universities in a multidisciplinary approach.

Melissa A. Alunni is a speech-language pathologist, assistant professor and clinical supervisor at Misericordia University in Dallas, PA, USA. She has been a practicing clinician for over 20 years, working in outpatient, early intervention, long term care, assisted living, and home health settings. She strongly supports ongoing advocacy and educational support to clients, families, and interdisciplinary teams. She is passionate about combining specialized clinical practice and academic knowledge to provide quality supervision to students to best prepare them as future clinicians.

Speaker Disclosures

No authors have any relevant relationships to disclose.