

INTERPROFESSIONAL EDUCATION AMONG HEALTH CARE PROFESSIONALS IN THE CARE OF AUTISTIC CHILDREN DURING THE LAST TWO DECADES (2001 TO 2020): A SYSTEMATIC REVIEW PROTOCOL

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Interprofessional education among healthcare professionals in the care of autistic children: A Systematic Review Protocol

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Abstract

Introduction: Autism spectrum disorder requires management from multiple health professionals in various settings during treatment. One of the most promising approaches to care for comprehensive healthcare management has been recognized as interprofessional collaborative practice. **Objective:** Collate empirical evidence on interprofessional education among healthcare professionals in providing care for children with autism. **Method:** A search will be conducted in five databases against the selected criteria. The review will only include studies conducted in English between 2001 and 2020. Two independent reviewers will scrutinize the abstract and title, and every study document retrieved will be investigated as full text only. Discrepancies will be resolved through unanimous agreement or decision by a third reviewer. **Results:** Studies will be scrutinized for design, setting, health professionals involved, sample size, sampling method, method of data collection and analysis, findings and outcomes. Reporting will be done using the PRISMA guidelines. **Conclusion:** The review intends to investigate the availability of studies that identify the effects of care provided to children with autism by professionals trained in interprofessional education to highlight the need for care and to explore whether these methods have any differences in outcomes concerning standard care.

Introduction

Autism and autism spectrum disorders (ASD) are an assimilation of a vast group of neurodevelopmental abnormalities that might have a lifelong effect on social interaction and capacity for communication and have some specified behaviours that may be repetitive or stereotypic. The prevalence of autism is estimated to be 2/1000 children, and ASD amounts to 6/1000 in world

statistics. It is a disorder that needs multidisciplinary care for a child who is otherwise tagged along with various health professionals for their care (Hodges et al., 2020).

Early identification and interventions have been identified to have a considerable effect in reducing the symptoms and enabling normal or near-normal life expectations among children with autism (Mavropoulou & Padeliaadu, 2000). Interventions and management are often specific to the manifestations and have been traditionally treated by specific health professionals (Lord et al., 2020; Su, Rogers, Estes, & Yoder, 2020; Wallis et al., 2020). Management has often entailed the child being taken to various health professionals to cater to the characteristic features exhibited by them (Hyman, Levy, & Myers, 2020). Some of the common interventions that are required are behavioural, speech and language, nutritional, cognitive remedial measures, emotional regulations, sensory-based interventions, sleep behaviour modifications, nursing care, and

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specific physiological interventions based on the type, severity and characteristic features manifested over the spectrum (Bashirian, Afshari, Jenabi, & Moradi, 2020; Dandil, Smith, Kinnaird, Toloza, & Tchanturia, 2020; Granville, 2020; Hunter, McLay, France, & Blampied, 2020; Karhu et al., 2020). The system of referrals is often challenging for caregivers, parents and children and causes a financial burden on caregivers and families (Bernie, Williams, O'Connor, Rogers, & May, 2020; Mazibuko, Shilubane, & Manganye, 2020; Shattnawi et al., 2020).

Interprofessional education refers to education involving two or more professionals who collaborate to learn and practice together for the benefit of the community (Buring et al., 2009; Reeves et al., 2016). Interprofessional education is a rapidly growing area in healthcare and is gaining momentum in Western countries. The practice of health professions is being enhanced by interprofessional education, which prepares a pathway for better and more personalized patient care provided by a team of well-equipped and dedicated healthcare practitioners implementing care based on interprofessional competencies (Interprofessional Education Collaborative Expert Panel, 2011). It has also been endorsed by various healthcare apex bodies, including the National Academy of Medicine and the World Health Organization (WHO), as an important approach for preparing health profession students to learn to provide care as part of a collaborative team (World Health Organization, 2010).

Interprofessional collaboration and practice are being used as the “best” practice for healthcare in many countries across the globe (Martimianakis, Fernando, Schneider, Tse, & Mylopoulos, 2020). Studies have shown the benefits of providing interventions using interprofessional collaboration. Interprofessional teamwork and communication have been playing a significant role in the well-being of the patient, taking up a patient-centred role in improving the health status in many instances. Therefore, utilizing a similar tactic in the care of children with autism is proposed as a sustainable, feasible, and cost-effective method to provide better patient outcomes (Kelly, Heyman, Tice-Brown, & White-Ryan, 2020; Martimianakis et al., 2020; Walmsley, Prakash, Higham, Barraclough, & Pit, 2020; Witt Sherman et al., 2020).

Healthcare for children, especially those with autism, is often considered unnecessary and unrequired in some areas due to denial of the existing condition. Parents in India often downplay the need for care, assuming that the child will improve with age. They also feel that it is a minimal developmental hazard, and accessing healthcare will pronounce the mental disability of the child and be labelled as mentally disturbed, a momentous taboo in society. This causes a delay in identification and thereby delays the procurement of early intervention. Multiple professionals, both health and nonhealth, parents and caregivers, can partner together and work towards identifying and providing healthcare to assist in early identification across various life stages of the child. Similarly, when the same or similar group of professionals and family members participate in the care as a team and can communicate their point of view for the provision of care, there can be better outcomes for the child to successfully navigate through life with minimum constraints to their functioning due to the condition (Anthony & Campbell, 2020; McClain, Shahidullah, Mezher, Shahidullah, & McClain, 2020).

Review Question

What is the evidence that interprofessional education and practice among healthcare professionals will improve care for children with autism?

Inclusion Criteria

Types of studies: Interventional and noninterventional studies, as available.

Types of Participants: Studies that include healthcare professionals providing care for children with autism.

Types of Interventions

Intervention: Any form of care, therapy, management, or intervention provided to children with autism by interprofessional collaboration and practice such as behavioural, speech and language, nutritional, cognitive remedial measures, emotional regulations, sensory-based interventions, sleep behaviour modifications, nursing care and specific physiological interventions.

Comparator: Standard care for autistic children (if available).

Setting

Any healthcare service institution or hospital where children with autism were cared for. No restrictions will be placed on the selection of settings.

Types of Outcome Measures

Primary Outcomes: Compilation and comparison of interventions carried out for caring for autistic children by any of the health professional groups within the scope of children’s care, either as a specific professional group or as an interprofessional team, including but not limited to nursing care, speech therapy, physiotherapy, and occupational therapy.

Secondary Outcomes: Effectiveness of interventions identified

- ⇒ Among autistic children – improvement or change in general life processes, progression of the condition, self-care, and management by specific professionals or groups of professionals.
- ⇒ Among healthcare professionals – identification and implementation of methods of management, teamwork, communication, and better interaction.
- ⇒ Other – changes in the practice of care aspects, preparation of health professionals for IPP.

Methods

The search will be conducted from PUBMED-Medline, CINAHL, SCOPUS, EMBASE, and WEB OF SCIENCE.

The review will include studies from 2001 to 2020, a span of two decades, and will not require any updated searches prior to submission. The detection of additional relevant keywords will be updated and included to refine the search. The language will be restricted to English only.

The main terms of the search will be “interprofessional education, healthcare professionals, care, children, autism” and will include synonyms, mesh terms or alternative terms as per the selected database. The search strategy will be planned for each database accordingly.

Search Grid

The following keywords were used for the identification of components in the current review.

P – Population	I – Intervention	O - Outcome
Autism Autistic Autistic Spectrum Disorder	Interprofessional Education	Improved healthcare service
	Interdisciplinary Education	Change in general life processes
	Multiprofessional Education	Progression of the condition
	Multidisciplinary Education	Enhanced Health services
Child with Autism Autistic child	Patient care team	Identification of management methods
	Interprofessional care	Effective Teamwork
Developmental disorder	Interprofessional Practice	Enhanced Communication
	Interdisciplinary care Interdisciplinary Practice	Better Interaction
	Multiprofessional care Multiprofessional Practice	Improved Interprofessional Practice Interprofessional practice preparedness
	Multidisciplinary care Multidisciplinary Practice	Change in practice
	Interprofessional collaborative practice	Effective Healthcare delivery

Selection of studies

Two independent review authors (SSN, SRK) will autonomously scrutinize and examine the abstract and title of every study document retrieved to establish the eligibility of the studies to be assessed further.

All plausible articles will be investigated as full text only. Any discrepancy will be resolved through unanimous agreement or decision by a third review author (CAM) if consensus is not attained. The review will be presented by adapting the flowchart of study selection from “PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)”.

Data Extraction and Management and Quality Assessment

Two independent review authors will review the abstract, key participants and intervention characteristics for studies that fulfil the established criteria for inclusion. The reviewers will identify the study design, setting, health professionals involved (sample), sample size, sampling method, method of data analysis and data collection, study's findings or results and the study's outcome. They will scrutinize the selected studies to identify the effectiveness of the care provided in terms of the health outcomes identified in the children relating to changes/improvement in their general life processes, the rate of progression of their condition and their ability to manage themselves and their care. The reviewers will also identify the effectiveness of interprofessional practice in the care of autistic children in terms of improvement in interprofessional competencies, communication, and teamwork to initiate a change or progress in the health status of the children.

Although all children are not alike and management may be varied among children with autism, the reviewers will explore the various treatment modalities used for the benefit of the children to identify their preference over traditional referral management if comparators are available.

They will also report data on the consequences of the outcomes and any discrepancies experienced while using the customary data abstraction templates. Any disagreements will be resolved through unanimous agreement or decision by a third review author if consensus is not attained.

Duplicates of published articles or multiple reports arising from a single primary study will be checked and referenced for maximum yield of information. In case of any scepticism regarding the publication, the primary or secondary outcomes will be given priority. RCTs (interventional studies) will be appraised using the Cochrane Collaboration Risk of Bias Tool, and non-RCTs (noninterventional studies) will be appraised using the ROBINS-I tool.

Strategy for Data Synthesis

The data extracted will be grouped by various selected indicators, such as the type of study, study design, study samples, sample size, setting, intervention, method of data collection, method of data analysis, results, and conclusion. The indicators will be grouped to prepare a descriptive synthesis in the form of tables and graphs.

If the number of studies does not fit the criteria for feasibility of meta-analysis, the results will be presented as a descriptive narration. Subgroup analysis will be performed to identify autism care among specific health professionals and the effect of interprofessional education on the delivery of care.

Reporting guidelines

The review will be reported using the "Preferred Reporting Items for Systematic Reviews and Meta-Analyses" (PRISMA) guidelines. This protocol was registered in the PROSPERO on 30 August 2021 and the registration number is CRD42021266625.

Strengths and Limitations of the study

Strengths:

- The review is attempted to be comprehensive and include all possible areas to obtain substantial evidence for the topic under consideration.
- The review attempts to answer the specific question regarding the importance of interprofessional care for children with autism.

Limitations:

The search grid for the study does not have a comparator as required for the PICO format.

Conclusion

The proposed systematic review will enable the researcher to identify any evidence that interprofessional education and practice will improve care for children with autism.

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