Including Students with Autism Spectrum Disorder in Regular Classrooms – Current Practices

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Abstract

There has been a tremendous increase in the prevalence of Autism Spectrum Disorder (ASD) in the last two decades. Present study was aimed at exploring current practices for including students with ASD in regular classrooms of Punjab and interpreting the findings in the context of international research. The study was qualitative in nature and data was collected by conducting interviews of professionals working with students having ASD in inclusive classrooms. Document analysis of recent international research articles for current practices was also done. Findings indicated similarities in perceived challenges by national professionals and international researches. But there were discrepancies in the selection and use of appropriate classroom strategies. International researches indicated that more inclusive practices such as cooperative learning strategies and use of UDL (universal design for learning) are effective for yielding positive results. On the other hand, professionals working in Punjab focused more on use of standardized interventions e.g. PECS (picture exchange communication system) and behavior management strategies. An important factor leading to this gap, as indicated in the findings of study, is a lack of appropriate training of teachers, both at pre-service and in-service level. Well-designed teacher trainings and promotion of evidence-based practices can positively contribute to developing more inclusion friendly strategies.

Keywords: Autism Spectrum Disorder (ASD), Inclusive education, Pakistan, inclusive classroom

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Introduction

Autism Spectrum Disorder (ASD) is a neuro developmental disorder. Before 2013 all similar problems in social interaction, repetitive behavior and communication were classified as ASD by American Psychiatric Association (Batten, 2005). In 2013, DSM V (Diagnostic and Statistical Manual of Mental Disorders V) classification improved its diagnostic criteria. Present criteria include deficits in three areas of social communication/interaction and at least two repetitive restricted behaviors (Emam, 2014; American Psychiatric Association, 2013). The incidence of ASD as reported by the Center for Disease Control (2015) is 1 in 68 children. This alarmingly high incidence of students with ASD poses potential challenges for academic institutions and academicians. Social and communication challenges in children with ASD adversely impact their performance in academics (Frith, 1991; Florian & Kershner, 2009). They face difficulties in problem-solving, abstract thinking, restrictions in interests, executive functioning and interpreting information (Emam, 2014; McLaren, 2013). It becomes a responsibility of the schools to improve and augment their social, emotional and communication problems (Gutierrez, Hale, Archuleta, & Victoria, 2007).

International drive of Education for All has paved the way for strengthening the inclusive practices in educational institutions. In sustainable development goals (SDGs) more emphasis is laid on equitable, inclusive and accessible educational facilities for children with diverse abilities (USDC, 2017; United Nations, 2019). The increasing number of children with ASD is being enrolled in inclusive classes. Students with ASD have unique personalities and different learning styles. Not all of them display uniform symptoms, therefore, one single inclusive strategy is unlikely to be appropriate for all students with ASD (McLaren, 2013). Inclusive education is considered the best possible educational setting for children with and without special needs (Jaher, Ikeseth, Eldevik, & Aase, 2007). Research indicates that inclusive education is very effective in enhancing social and communication skills of all students(Batten, 2005; Ainscow, Dyson, & Weiner, 2013). But most of these findings are relevant to the children with less complicated sensory processing and social skill deficits as compared to children with ASD (Emam, 2014; Anderson, 2007; Gresham, 1998).

Different researchers (Levine, 1998; Jaher, Ikeseth, Eldevik, & Aase, 2007; Bryant, Smith, & Bryant, 2008) have argued that the ASD related difficulties can have a negative impact on the participation and social

outcomes of these pupils in mainstream schools. Another research focus has been on interventions designed to improve the social interactions of students with autism but yet much is not known about the effectiveness and types of inclusive practices being used commonly in real classroom settings (Rogers, 2000). Interventions used to improve social integration for children with ASD are often technical and require special training of teachers. But most of the time pre-service and in-service training of teachers do not cover this component (Gutierrez, Hale, Archuleta, & Victoria, 2007).

Teachers display a variety of attitudes towards inclusion of children with ASD. Some teachers show positive attitude and willingness towards teaching in inclusive classrooms (McKeon, Alpern, & Zager, 2013), while some teachers think that including children with moderate to severe social and communication deficits is very challenging, and it's difficult to plan activities for such students(Bryant, Smith, & Bryant, 2008). Mostly teachers of inclusive classrooms express the need for further training (Casebolt & Hodge, 2010).

Present study was aimed at identifying challenges and trends in including children with ASD in Punjab, Pakistan. Most relevant International research studies were analyzed to interpret and discuss the findings in the context of international practices. In this study "inclusive education" is defined as "an educational setting in which students with disabilities participate in school activities alongside students without disabilities and attend their neighborhood school (Bryant, Smith, & Bryant, 2008).

Objectives

This study was conducted to
i. Discover recent practices and challenges in teaching children with ASD in inclusive classrooms of Punjab.
ii. Discuss identified local practices in the context of international practices.

Methodology

Present study was qualitative in nature. To get an in-depth knowledge of current practices, interviews of professionals working with students having ASD in mainstream schools of Lahore were conducted.

To understand local practices in international perspective, document analysis of selected international research articles was carried out.

Sample

The sample for this study was purposively selected. Not much work has been done on the inclusion of ASD in Pakistan; therefore three participants having relevant experience were selected for Interview. All were working practically with children with ASD in Lahore. Two participants were psychologists while one was a classroom teacher. All three of them were females. Their ages ranged from 25 to 33 years. All three had done post-graduation and their experience in working was not less than five years. All three were practically involved in including children with ASD at pre-primary and primary level schools.

For document analysis, most recent and most relevant research articles were searched. ERIC (an online library of education research and resources) was used as an online resource for articles. Articles were searched by using keywords "ASD and inclusion", "including children with Autism" and "Autism AND inclusive education". Initially, 23 Articles were selected which were most relevant to study objectives. They were further shortlisted and only those which were refereed and published in or after 2010 were selected. Only one article published in 2007 was selected based on its relevance. Thus, 10 articles were selected for review and were coded A1, A2, A3,… A10.

Data Collection and Analysis

The findings from the interviews gave an overview of issues and challenges in Pakistan and these findings were interpreted against the background derived from the international literature. The interviews were based on open-ended questions (considered in advance by two colleagues) and standardized qualitative data analysis procedures were used (Lincoln & Guba, 1985). In this, the researcher listened to every interview and all the interviews were transcribed, giving three files which were coded P1, P2, and P3. Then, the transcriptions were read several times to pick out key themes and categories. Different colored markers were used to mark open codes word to word, line to line and sentence to sentence. This procedure produced a vast number of open codes. Then, this vast number of codes was narrowed down to identify major categories. At this stage, the codes and categories were shared with senior colleagues once again for the feedback.

Similar data analysis procedures were applied to read and re-read research articles. Many codes were marked, but, in the end, this reduced naturally to a small number of key issues. Each of the emerging themes formed the basis of interpretation and discussion.

Results

Most relevant themes which emerged during review are given in table 1 along with articles in which these themes were represented and participants with similar responses.

Table 1
Identified themes, Corresponding Articles and Participants with Similar Responses

Theme	Corresponding articles	Participants with similar responses
Changes in dynamics of classroom	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	P1, P2, P3
Gaps in planning accommodations	A1, A3, A4, A6, A7, A8, A10	P1, P2, P3
Teachers lack sufficient skill and training	A1, A2, A3, A4, A5, A6, A8, A9, A10	P1, P2, P3
Small sized and well organized class rooms	A1, A2, A3, A4, A7, A8	P1, P2, P3
Preferred courses/subjects for children with ASD	A2, A4, A5, A7	---
Cooperative learning strategies	A2, A3, A4, A7	P1
Applying principles of Universal Design for Learning (UDL) in classroom	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	P1, P3

Themes emerging from international research articles and experiences of professionals from Lahore were quite similar and interrelated regarding challenges being faced in including children with ASD. But a clear gap was visible in current positive practices and appropriate strategies for successfully including children with ASD in regular classrooms. Each theme is used as a heading to discuss the findings under that theme.

a) Change in the Dynamics of the Classroom

Findings of document analysis reflected that the presence of children with ASD changes the dynamics of a classroom (A6, A5). They might ask too many questions - even irrelevant ones, be distracted easily, and

face problems in sensory processing (A4, A8, A10) and managing sensory load of a class having many students (A7, A8). Students with more severe conditions of autism rarely initiate any social interaction with typically developing peers (A1, A6) and mostly initiations are physical in nature (A3).

Research indicated that being disorganized, or easily distracted, problems in communicating, week time management skills (A4, A3) and difficulty working in groups were considered as major challenges by college students with ASD (A2).

Participants also expressed during interviews that the presence of children with ASD in regular classrooms changes the whole environment of the class (P1, P2, P3). Participant 3 stated, *"They are quite unpredictable at times; you cannot expect to have a strict discipline in class, once you have a child with ASD in there".*

b) Gaps in Planning Accommodations

International researches indicated that Students with ASD usually require support in executive functions (e.g. planning, organizing & time management) and developing social-emotional relationships (A3, A6, A7). These important areas are often overlooked while planning accommodations for including these students in regular classrooms (A1, A4). Teachers need to use more evidence-based accommodations and instructional strategies (A8, A10).

All participants indicated that they lacked proper planning for students with ASD and ample time was not spent on planning activities. As stated by participant 2 *"They should be provided training in how to wait for their turn, how to manage their hyperactivity and how to listen to and obey commands."*

c) Teachers Lack Sufficient Knowledge and Skill

An important theme which emerged during document analysis was regarding teachers' training. Teachers lack the knowledge and skills required to teach students with ASD in inclusive settings. (A1, A8) and many general school teachers express the need for supplementary training and support for including children with ASD (A4, A9). Teachers were not prepared to teach children with ASD in their classrooms (A2, A5) because they neither understood the importance of inclusive education nor were they familiar with characteristics of children with ASD. (A3, A6, A10).

All participants expressed dissatisfaction with current teachers' training facilities. They argued that pre-service and in-service training are significantly missing the component of inclusive practice and needs of children with ASD and with other special needs. Participant 1 expressed the same in the following words: *"I never heard the word inclusive education in my entire student life. It was after my appointment in my current school, that I came across this term for the first time. But still, I require lots of training to know about children with ASD, their special needs and ways of handling these students in classrooms".*

d) Small-Sized and Well-Organized Classrooms

While analyzing international research articles it became quite clear that students with ASD and their teachers suggest that smaller class sizes, clearly stated expectations and teachers' willingness were very important in facilitating their learning in an inclusive environment (A4, A2). Structured and predictable areas in the classroom and visual representation of rules and schedules help them in getting settled in the classroom (A3, A7). Teachers can support these students by helping them chose the best place to sit in class, allowing tape recording of lectures, providing lecture material in advance and support through peer reading pairs and providing extra time for tests (A4). Inclusive environment for facilitating social interaction and structured, systematic support yield positive results for students with ASD (A1, A8).

There was clear reciprocation among all participants regarding class size. They emphasized that class size should be small to successfully include children with ASD. Participant 3 expressed, *"We cannot accommodate children with ASD in big classes having more than 25 or 30 students; class should be small with fewer students".*

e) Preferred Courses/Subjects for Children with ASD

Students with ASD have a preference for set routines (A5, A7) and it was interesting to discover that it has been used as their strength. They tend to perform very well in subjects where pattern recognition is important such as computer science and culinary science (A2). Some students with ASD perform better on online courses mainly due to easy interaction, more consistent formats and better control over sensory load (A4).

All participants were working with primary and pre-primary level children with ASD so they did not express any such ideas about preferred

courses or subjects for children. One participant thought did express that drawings, paintings, and designing skills are quite good in some students with ASD.

f) Cooperative Learning Strategies

Group arrangements in learning activities emerged as an important theme. Mostly research articles (being analyzed) argued that cooperative learning strategies such as Think-Pair-Share (TPS) are quite effective for children with ASD. Through this technique, students think individually about a topic, share with a partner and then discuss it with class. Pairing with a partner helps in focusing attention, improves student's comprehension in reading activity and maximizes participation (A4). Pairing with a partner before interacting with whole group minimizes the threats perceived by these students regarding social interactions. (A2, A3, A7)

During the interview, none of the participants gave any specific importance to the group arrangements. Mostly they were concerned with one to one academic coaching or general behavior of children with ASD in the classroom. Although, one participant did mention, "learning buddies can help work with high functioning autistic children". (P1)

g) Principles of Universal Design for Learning (UDL) in classrooms

Universal design for learning (UDL) in classrooms practices can help students with ASD (A2). Universal design refers to the design of products and environments which are usable by diverse users to the greater extent possible, without any modification (European Agency for Special Needs & Inclusive Edu, 2015). Using principals of UDL facilitates all students with diverse abilities, so benefits are not just limited to students with ASD (A8, A10). It makes educational environment and products more accessible to all students (A9, A6, A5). Three characteristics of the curriculum have been identified which should reflect UDL to support inclusive practices. These characteristics include *"multiple means of representation"* (communicating directions, class outlines and relaying concepts through multiple means e.g. whiteboard, powerpoint presentation, printed on page, oral, video, online etc.), *"multiple means of engagement"* (facilitating cooperative learning as well individual learning, creating motivating learning environment and making learning relevant to all), and "*multiple means of engagement*

and expression" (e.g. using erase boards, pairing with peers, organizers, checklists, and multiple ways of task completion and assessment etc.) (A3, A6, A7, A1, A4).

None of the participants were aware of the technical term of UDL. But two of the participants did mention that overall class activities and environment should be organized in a way that all students can find activities and information according to their interests and learning preferences. (P1, P3)

Conclusions

Findings indicate that there seems to be a clear awareness about the challenges associated with the inclusion of students with ASD. Practitioners realize that class dynamics change when you have students with social and communication challenges in your class. Findings indicate that while planning for inclusive classrooms, learning needs and response patterns of children with ASD are not given due importance. Findings from local professionals and interactions researches coincide on the point that teachers receiving insignificant or no training in inclusive education and special needs find it very difficult to accommodate students with ASD and other special needs in their classrooms. Therefore, an underlying factor contributing to this challenge seems to be unavailability or lack of pre-service training in inclusive practices and pedagogy.

There seems to be a wide gap in international and local practices regarding the application of more inclusive practices such as cooperative learning strategies and UDL (universal design of learning). Almost all articles reviewed during document analysis argued that UDL or user-friendly materials and practices should be a guiding principle to accommodate diverse learners in classrooms and more flexible strategies such as cooperative learning should be used in inclusive classrooms. It was noticed that professionals working in Lahore tend to be more predisposed towards the use of specialized interventions such as PECS (picture exchange communication system). They have physically placed students with ASD in regular classrooms but more awareness and training are required to change their approach from clinical to inclusive.

This study focused only on students with ASD studying in pre-primary or primary schools. Nonetheless, it confirmed the very demanding nature of working with children with ASD. Two key conclusions based on the findings of the study are:

- There is a need for training and support for all teachers who might have to work with such children. In-service trainings can be best offered by academicians in collaboration with those having direct practitioner experience in the area.
- There is a need for adaptation and implementation of evidence-based international best practices so that Pakistan can embrace the strategies that are most effective.

In this way, the demanding task of working with ASD children can be enhanced and supported.

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