## АРМЯНСКИЙ ОПЫТ СОЦИАЛЬНЫХ ВЗАИМОДЕЙСТВИЙ ДЕТЕЙ С АУТИЗМОМ

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Аннотация. Социальные взаимодействия играют фундаментальную роль в развитии детей (Parker, Rubin, Price, & DeRosier, 1995). В целом, несмотряна то, что количество исследований ААС как вмешательства для развития речи и языка у людей с аутизмом растет, исследования в основном сосредоточены на использовании ААС для регуляции поведения. В статье основное внимание уделяется использованию ААС для социальной коммуникации.

Ключевые слова: взаимодействие; невербальные/минимально вербальные дети; альтернативное общение; типично развивающиеся сверстники, дети с особыми образовательными потребностями.

## ARMENIAN EXPERIENCE OF SOCIAL INTERACTIONS OF CHILDREN WITH AUTISM

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**Abstract.** Social interactions play fundamental roles in children's development (Parker, Rubin, Price, & DeRosier, 1995). There exists a dearth of research describing types of interactions. In general, while research on AAC as an intervention to promote speech and language in individuals with autism is growing, the research is primarily focused on the use of AAC for behavioral regulation. There is a lack of research on the use of AAC for social communication.

**Keywords:** interaction; non-verbal/minimally verbal children; alternative communication; typically developing peers, peers with special educational needs.

Autism is a complex neurodevelopmental disorder that severely compromises functioning in multiple developmental domains. (Rogers, 2006). Eisti et al. (2011) found that approximately 25 % of individuals with autism will not develop functional speech which will require the need for an alternative form of communication.

Augmentative and alternative communication (AAC) refers to systems designed to supplement or substitute a person's speech through the use of non-symbolic and symbolic modes of communication (Rowland, 2004). Examples of AAC include unaided systems, aided systems (ASHA,1997], or exchanging a symbol (Frost & Bondy 1994, 2002). Naturalistic approaches often use AAC systems, which have robust research evidence (see Reid et al. [1989] for a review) because there is a greater potential that the effects generalize outside of the training environment (Paul, 2008). It should be mentioned that AAC systems are not widely applied by specialists internationally, especially in countries such as Armenia for several reasons: (1) professionals are not mastering the methods to teach the use of AAC; (2) professionals are reluctant to participate in trainings as a result of absence of need for licensing and specialized trainings; (3) time commitment for preparing necessary accessories (e.g., a communication book, pictures) for AAC; and (4) parents' and sometimes even professionals' fear that when AAC is used, the child will not speak, because he or she will not see the need (Tichá et al. 2018).

The only research in Armenia on AAC was done by Avagyan in 2011. In this study, PECS methodology was used in conjunction with speech therapy with 44 children with autism, aged  $2\frac{1}{2} - 8$ . As a result of the speech therapy with PECS methodology, verbal speech was developed in 78% of the children. In 13% of the cases, PECS was used for connected speech development, since the child did not have developed speech (Avagyan, 2013).

Recognition of the importance of promoting peer interaction for students with autism has been central to discussions of inclusive education (Brown et al., 1977; Rubin et al., 2009) and special education/self-contained classrooms (Koppenhaver & Yoder, 1993, Tsai, 2016) for the last decades. Research suggests that students' peer interaction experiences are strongly associated with positive academic, behavioral, emotional, and social outcomes (Parker et al., 1995, Bukowski et al., 2009). At the same time, the absence of quality peer relationships has been linked to social isolation, loneliness, depression, delinquency, and poor school performance (Asher, et al., 1990, Bauminger et al., 2003;). Despite the importance placed on promoting positive peer interactions and the friendships that can emerge as a key element of comprehensive education, an accumulation of observational and longitudinal studies confirms that these relationships are often especially limited for students with autism (Carter et al., 2009; Webster & Carter, 2007). For example, parent interview findings from the Special Education Elementary Longitudinal Study indicated that 32% of children with autism had never visited with friends during the previous year, and 81% of children with autism never or rarely received telephone calls from friends (Wagner et al., 2002).

Especially in locations such as Armenia, specialists often work with children with autism in their offices, far and apart from their classmates, providing one-on-one intervention. As a result, many of the students learn to communicate primarily on a one-to-one basis with the specialists and continue to demonstrate difficulties when interacting with teachers and peers in other environments. In other words, the child may receive an appropriate means of communication but continues to have very limited opportunity to use that communication which would result in further social isolation. This social isolation may be particularly apparent in the lives of students who use AAC (Beck et al., 2010; Koppenhaver & Yoder, 1993). As for Armenia, research conducted by UNICEF and Civilitas Foundation found that more than half of the surveyed participants agree that children with physical disabilities should attend mainstream schools. On the other hand, when it comes to students with disabilities attending the same class with their own children, the number of parents responding positively was less. With regard to children with intellectual disabilities, 36% of research participants in 2015 and 40 % in 2016 agree that children with intellectual disabilities should attend

mainstream schools. As in the previous case, when it comes to children with intellectual disabilities attending the same classroom with the participants' own children, the number of participants with positive responses was again less (UNICEF, 2017).

So, if we speak about Armenia (and it can potentially be the truth about many other developing, and even developed countries), the main issues in early intervention of children with autism are as follows (a) many children are not receiving early intervention, (b) social deficits remain the core problems being addressed by interventions of specialists providing services to improve speech and communication, (c) there is a lack of data on interactions between non-verbal/minimally verbal children with autism who use augmentative and alternative communication (AAC) with their peers (both typically developing and other peers with disabilities) and (d) there is lack/if not to say absence of single subject research.

The first two issues described above require state and system level policy changes and reforms. The third and fourth issues can be addressed by researchers and practitioners. Thus, in an attempt to support the goal of more rigorous research in using AAC for social communication, the purpose of this research is to fill in the gaps in data collection.

The crucial part of our endeavor was to develop a behavioral observational coding system for reliable and valid assessments of peer interaction and outcome measures of professional interventions. To that end, we developed an observational coding system, which can be useful for specialists to provide a comprehensive assessment of interaction between non-verbal/minimally verbal students with autism who use AAC with their peers (both typically developing and other peers with disabilities). While other coding systems for social interaction exist in the literature, this particular coding system can be used by specialists to assess all of the following: (1) the initiator and responder of the interaction (child with autism, typically developing child, other peer with special needs, adult); (2) the type of communication mode used (speech generating device, pictures/symbols, voice appropriates, body movements, gestures, words, facial expressions); and (3) the purpose of interaction (asking questions, making comments, asking/answering questions, expressing wants/needs, other). In addition, the specialist can identify the interaction of children in different settings (snack, play, circle and class).

In conclusion, speech is a crucial tool for social interactions, learning, social relationships, and participation in the community. Non-verbal-minimally verbal children with autism have a high risk of being excluded from education and social life. Comprehensive and accurate assessment of the interaction of these children with their peers is critical and provides researchers with reliable data on the baseline and shows the effectiveness of an intervention. In addition, it requires that specialists know about effective approaches, can learn to deliver effective approaches at appropriate levels of fidelity, and can be recognized by public agencies to spread such interventions. Interventions, which prove their effectiveness by a reliable observational coding system, are a necessary first step, and this pilot project contributes towards our goal.

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