

Research Article

Relationship between Total Communication and Social Relationship among Learners with ASDs

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Received: June 17, 2023**Accepted:** August 30, 2023**Published:** September 06, 2023**Abstract**

Autism is a lifelong developmental disability that results in triad of impairments in verbal and non-verbal communication, social interaction and repetitive behavior. These core deficits hinder the holistic development of learners with ASDs. Unless they are effectively addressed through strategies such as total communication, these core deficits may lead to learners not acquiring social interaction skills that are quite vital for their normal development. The purpose of the study was to establish relationship between total communication and development of social relationship skills among learners with Autistic Spectrum Disorders in Emuhaya sub-county Kenya. The population of the study comprised of six special schools with a teacher population of sixteen ten regular primary schools with special units with a teacher population of five each and three officials from the Ministry of Education. Due to small number of respondents, saturated sampling technique was used. Instruments for data collection were; semi structured questionnaires, check lists. Semi structured interview schedules, and observation schedules. Content validity was determined by presenting tools to experts in the school of education who judged their validity. Tools were refined based on their comments. Reliability of the study was established through test retest methods. Thematic analysis was used to analyze qualitative data. Quantitative data was analyzed by use of descriptive and inferential statistics. The finding of the study indicated that there was relationship between Total Communication and social interaction and the use of Total Communication had influence on development of social relationships among children with ASDs. Based on this finding it is recommended that training of teachers in Total communication and preparation of IEP be intensified in schools to facilitate the development of social relationship among learners with ASDs.

Keywords: ASD; Total communication; Social interaction**Introduction**

Autism is characterized by triad deficits in social interaction, communication and unusual repetitive behavior and repetitive stereotype patterns of behavior [1] This is manifested in surface behaviours such as hand flapping, turning and stacking blocks, resistance to environmental change or change in daily routines and unusual responses to sensory experiences [2]. Previously the Diagnostic statistical manual IV classified autism in five sub categories. These were Autistic disorders, Retts disorders, Childhood Disintegrative Disorder, Asperger's Syndrome and Pervasive Developmental Disorders Not Ootherwise Specified (PDD-NOS) [5] Currently DMS -V collapses all the five groups into a single group referred to as Autistic Spectrum Disorders (ASDs) (Jabr 2012). In this new dispensation, the DSM-5 combines social and language deficits into a single measure, collapsing the

three domains defined in the DSM-IV into two. This indicates that for a person to be diagnosed with ASDs, an individual must have 'deficits in social communication and social interaction' and show restrictive and repetitive behaviors (Jabr, 2012).

Total Communication (TC) is an educational philosophy which was introduced to the field of deaf education in the 1960s [7]. TC utilizes all modalities of communication (spoken, signed, and written) as well as lip reading, and gestures in the communication of people with communication difficulties such as those with ASD. Simultaneous communication (SimCom) is typically used in education settings that boast a TC approach [4]. Users of SimCom speak and sign simultaneously. Because American Sign Language (ASL) uses a different grammar and syntax from

English, out of necessity the sign system that is used during Sim-Com is some form of manually coded English or a form of pidgin sign language. Total Communication is a skillful use of an integrated approach for learners with ASD that combines the use of manual signing combined with speech, symbols, gestures, photographs and pointing [7]. Communication is an activity or process of expressing ideas and feelings among people. Children with communication delays initially require support with visuals and prompts to communicate and then expected to communicate with these means independently (Bullis, 2001).

Children with ASD have difficulty in communicating with others. This may be because they have difficulty saying what they want to, understanding what is being said to them, or they do not understand or use social rules of communication [8]. The profile for every child with ASD is different and their needs may change over time. They may have difficulty with one, some or all of the different aspects of speech, language or social communication at different times of their lives. Children and young people with ASD are likely to have particular difficulties with social interaction. They may also experience difficulties with language, communication and imagination, which can impact on how they relate to others. Communication and interaction needs could include difficulties with producing or responding to expressive or receptive language difficulties uttering speech sounds difficulties understanding spoken and other communications from others and difficulties with understanding age-related social conventions of interaction, such as turn-taking during conversations or appropriate level of physical contact during play [8].

Communication and social skills complement each other. Research evidence suggests that natural speech may develop in learners with ASD concurrently with manual signing as a result of total communication training [6]. In a related studies [6] revealed that the Picture Exchange Communication System (PECS), a pictorial system that uses basic behavioural principles such as differential reinforcement, shaping and transfer of stimulus was a powerful method of teaching social communication skills to learners with ASD who had not developed functional speech.

Methods

The study was carried out in Emuhaya sub-county for a period of four months. The study was carried out in six special schools and education office. Population of study consisted of 31 teaches teaching in special schools in Emuhaya sub county, 6 head teachers and two education officers. Saturated sampling technique was used since the population was small to make a sample out of it. Instruments for data collection were; semi structured questionnaires, check lists. Semi structured interview schedules, and observation schedules. Content validity was determined by presenting tools to experts in the school of education who judged their validity. Tools were refined based on their comments. Reliability of the study was established through test retest methods. Thematic analysis was used to analyse qualitative data. Quantitative data was analyzed by use of descriptive and inferential statistics.

Results and Discussion

Preliminary data generated by checklist and observation on communication and social interaction skills among children with autism re. This was achieved using the observation schedule as well as the questionnaires.

To find out whether learners with ASD in Emuhaya sub-county had developed social interaction and communication skills, preliminary data was collected through checklist and observation. The findings are presented in Table 1.

The finding indicates that learners had receptive language and to some extent they were limited in expressive language. They also experienced difficulties responding verbal direction, questioning and commands. This implies that these learners will be limited in their communication such as making requests, communicating their needs, initiating or sustaining a conversation which are key factors in social interaction. This is likely to lead to display of maladaptive behaviors such as tantrums, screaming, repetitive noises (echolalia) and self-stimulating vocalization in order to gain attention or to communicate their needs [4]. Concerted efforts need to be made in teaching these learners using techniques such as PECS and augmentative and alternative communication.

The study also investigated the influence of teacher's social interaction on development of communication. The results are presented in Table 2.

The results indicate that majority of teachers, 13(40.6%) used word cards, 12(37.5%) gestures, 14(43.8%) sign language, 16(50.0%) praise, 19(59.4%) inclusion, 11(34.1%) pictures, 19(59.4%) behavior regulation with visuals and 21(65.6%) sensory activities, pointing and they used child centered and child-teacher centered methods to help the child develop social skills for social communication.

This finding is supported by interview guides with the school head teachers and education officials who acknowledged that teachers were making good attempt to make learners with ASD gain communication abilities. Observation scheduled revealed that majority of teachers were trying to make nonverbal learners with ASD in their classes to gain communication skills through gestures, eye-gazes, or motor intents. Most learners with autism gained joined attention at their level of impairment as teachers provided visual cues or symbolic representations. Results also indicated that teachers used multiple communication methods to influence development of social communication. This finding is consistent with Prizant et al. (2013) which indicated that early learning increased when verbalizations were combined with non-verbal gestures such as pointing. It also lends credence to Spencer et.al., (2008) study where teachers influenced the development of communication with the help of Augmentative and alternative communication which involved supplementing and replacing natural speech and writing with aided or unaided symbols, this is a clear demonstration that total communication influences the development of social interaction skills.

Table 1: Development of social interaction and communication. Checklist on Learner's Social Interaction skills.

Checklist	Present/not present	Checklist	Present/not present
Receptive language		Verbal direction response	
Expressive language		Commands	
Respond to names		Questioning	

Table 2: Influence of teachers social interaction on development of communication.

Total communication	SD	D	SHA	A	SA	Mean	Median	Mode	Std
Word cards	1(3.1)	4(12.5)	13(40.6)	4(12.5)	10(31.3)	3.6	3	3	1.16
Gestures	3(9.4)	4(12.5)	7(21.9)	6(18.8)	12(37.5)	3.6	4	5	1.36
Sign language	1(3.1)	2(6.3)	7(21.9)	8(25.0)	14(43.8)	4.0	4	5	1.11
Praise	1(3.1)	3(9.4)	6(18.8)	6(18.8)	16(50.0)	4.0	4.5	5	1.18
Inclusion	1(3.1)	5(15.6)	4(12.5)	3(9.4)	19(59.4)	4.1	5	5	1.29
Pictures	2(6.3)	4(12.5)	11(34.1)	5(15.6)	10(31.3)	3.5	3	3	1.24
Visual activities	0(0.0)	2(6.3)	3(9.4)	8(25.0)	19(59.4)	4.4	5	5	0.91
Sensory activities	1(3.1)	1(3.1)	3(9.4)	6(18.8)	21(65.6)	4.4	5	5	1.01
Child centered	3(9.4)	2(6.3)	3(9.4)	7(21.9)	17(53.1)	4.0	5	5	1.33
Teacher centered	1(3.1)	4(12.5)	7(21.9)	6(18.8)	14(43.8)	3.9	4	5	1.21

Table 3: Correlation between Total communication and social interaction.

	Total communication	Social interaction
Total communication	1	
Social interaction	0.594	1

The current study sought to establish the relationship between total communication and development of social interaction by the use of Pearson Product moment correlation as well as narrative associations from the respondents, observations and interview with the respondents. The Pearson Product moment correlation is presented in Table 3.

The findings show that there was a positive significant correlation between social interaction and total communication ($r=.594$, $p=.000$). This implies that positive efforts by teachers to improve total communication among learners enhanced their social interaction.

This finding is supported by interview and observation data which revealed that social interaction reinforced interpersonal communication. Learners were motivated when teachers used total communication. This made learners to try to interact with pictures by pointing at them, making gestures, touching some which interested them most and this made learners with ASDs developed their social interaction in communication skills.

Conclusion

It can be concluded that total communication influences social interactions and leads better interpersonal communication among learners with ASD and teachers. There is need in intensifying teacher's skills in total communication techniques to realize the potential of learners with ASD.

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