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Impact of social contact on meal time skills among children with intellectual disability

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Abstract
Man is a social-cultural being as the social contact activities play very important role in human life. The present study was conducted with the aim to evaluate the impact of social contact on meal time skills among children with moderate intellectual disability (ID). The sample included twelve primary level children with moderate intellectual disability; male and female student are taken in equal proportion who are studying in Sanjeevani Special Education School, Chandauli, Uttar Pradesh. To evaluate meal time skills, the investigator has selected to use the Meal Time Activities Domain from Madras Developmental Programming System (MBPS) - Behavioural Scale developed by Prof. P. Jeyachandran and Prof. V. Vimala in 1975. The quasi experimental pre-test post-test Non-Equivalent group design has been used. In order to select the sample, non-probability sampling design and purposive sampling technique has been used. The recess time was utilized for social contact activities as intervention for twenty days. Analysis of data rejected two null hypotheses whereas one null hypothesis has been accepted. Result of the study reveals that there is significant impact of the social contact on developing meal time skills among children with moderate intellectual disability.

Keywords: social contact activity, meal time skills, primary level, children with moderate intellectual disability

Introduction
The most distinctive feature of human life is its social character. All human beings have to interact with each other in order to survive. The great Greek philosopher, Aristotle remarked that 'Man is a social animal.' Both nature and necessity impel man to live in society [2]. Thus man is social-cultural being and society is both natural and necessary for man. It is difficult for men to live in isolation. They always live in various groups and association. As members of these groups, they act and behave in a certain manner. The behaviour of each individual is affected by the behaviour of others. This contact is essence of social live. Behaviour system grow out of social contact and interaction. Without interaction there would be no social or group life. Mere physical proximity of individual does not unite them into a group or social unit. It is only when they mix with one another – interact or talk together to realize a common end or play together or even compete or conflict with one another so that associative life exists [3]. Thus appropriate social behaviours are necessary for any person to be an acceptable member of the society. Every human being is expected to follow certain standards of social behaviour, set by the society according to the cultural norms and age level of the individuals.

According to American Association on Intellectual and Developmental Disabilities (2008), "Intellectual disability is a disability characterized by significant limitation both in intellectual functioning and in adaptive behaviour as expressed in conceptual, social and practical adaptive skills. This disability originates before the age of 18."

Significantly sub average intellectual functioning means that the individual has an IQ score of less than 68 or 70 on one of the individually administered standard intelligence test. "Adaptive Behaviour" refers to the skills needed for personal independence and social responsibility such as dressing, toileting, feeding, behaviour control, independence in community and interaction with peers.

"Development period" is defined as the time between conception and 18 years of age. An initial diagnosis of intellectual disability is commonly to be made during this period. All three of these conditions must be met to identify an individual with intellectual disability.

As described by the definition the children with intellectual disability have limitations in adaptive behaviour which include various day to day life skills. If we observe the children with intellectual disability or interview their parents or special educators, they often complain that their children have limitations in meal time skills and they desire that their children should be able to feed independently and should learn meal time skills so that their better socialization would be possible. Eating and feeding problems have been found to occur across the entire range of ID. Linscheid (1983) [11] described 10 mealtime problems that were prevalent within this population including tantrums, bizarre food habits, multiple food dislikes, food-texture selectivity, delay or difficulty in chewing, sucking or swallowing, delay in self-feeding, pica, excessive overeating, malnutrition through eating very little, and rumination. Later it was suggested that 11 feeding problems could be parcelled into four distinct categories: lack of independent skills, disruptive behaviour, eating too much or too little, and selectivity by type of texture (Sisson & Van Hasselt, 1989) [13]. A wide variety of different disorders, skill deficits, and excess behaviours are considered to be feeding and mealtime problems within the ID population. Failure to thrive is one such disorder, which is characteristic of children who, due to a serious paediatric ailment, have trouble gaining weight (Harnill, Drizd, Johnson, Reed, Roche & Moore, 1979 [8]; Strickler, 1984). Found within formal diagnostic guidelines of the DSM-IV-TR, disorders seen within the ID population include: feeding disorder of infancy or early childhood, which refers to children who persistently fail to eat adequately and gain weight; rumination disorder, characterized by repeated regurgitation and re-

chewing of food; and pica, the persistent eating of non-nutritional substances (Girolami & Scott, 2001) [6]. While some of these problems are often associated with infants and children (Johnston, 1993; [10] Riordan, et. al, 1984) [12], these problems are also prevalent among adults with ID.

Having such types of problem in children with ID and there are also significant limitation of intellect; they need intensive training to cultivate appropriate social behaviours. Instead of keeping them away from the society, giving them chances to mix in the society from the childhood itself will lead them towards gaining social competency. The training should be started very early in life. The family, the relatives, neighbours, friends and the society at large are responsible for the social skills training of children with intellectual disability.

Review of Literature

A study conducted by Rita L. Bailey and Maureen E. Angell (2005) [1] on a single-subject multiple treatment design counterbalanced across nine participants with moderate to severe and multiple disabilities was used to determine the efficacy of a school-based multi-treatment package (a combined dysphagia treatment and positive reinforcement behaviour management programme) for children and youth (ages 4-17) with feeding problems as compared to use of a dysphagia treatment program or a positive reinforcement behaviour management program alone. While results found improvement in development of feeding skills and positive mealtime behaviours with all intervention programs, the combined intervention package was the most effective intervention strategy. These results may help professionals establish best practices for treatment of feeding problems in schools.

Johnny L Matson *et al.* (2006) [9] examined that feeding problems are common among individuals with intellectual disabilities. The aim of the current study was to determine the relationship between food refusal and social skills in people with intellectual disability. The Screening Tool of Feeding Problems (STEP) was administered to all residents of a large developmental centre. 82 residents who exhibited food refusal, and 81 residents who did not exhibit food refusal were identified by this screening tool. 163 participants were assessed by using the Matson Evaluation of Social Skills in Person with Severe Retardation (MESSIER). People who exhibited food refusal displayed significantly more negative nonverbal and general negative social skills when compared to controls. Food refusal was prevalent across all ages, genders, and levels of intellectual disability. As social skill deficits are associated with deficits in feeding skills, social skills training should be considered as a major component of behavioural interventions targeting food refusal in people with intellectual disability.

Jill C. Fodstad (2008) [5] explained that because of the lack of information that categorically describing feeding behaviours in individual with autism spectrum disorders, so by considering this point, this research is inclined to examine the nature of feeding difficulties in adults with intellectual disabilities (ID) and Autism Spectrum Disorders (ASD). The impact of feeding and mealtime behaviour problems on daily functioning of an individual, as well as its potential for causing severe medical conditions (eg., poor nutrition, choking, aspiration) that may ultimately lead to death, are really an area of concern. This topic is imperative in order to better understanding of these problem behaviours in person with autism for proper diagnosis and treatment planning. There were two participants groups: one is ASD and ID (autism or Pervasive Developmental Disorders – Not Otherwise Specified) and another group is ID and no additional Axis I diagnosis other than Pica or Rumination. The aim of the study is to measure that whether there are differences in aberrant eating habits between groups by applying the Screening Tool for feeding Problems (STEP). Descriptive analyses and a MANOVA were used to analyse data while taking into account any medical conditions that may be underlying feeding problems. Result of the study showed that more refusal related feeding problems found in adult with ASD and intellectual disability while more feeding skills difficulties found in those who have intellectual disability only. Implications of these data are discussed.

Debra Umberson and Jennifer Karas Montez (2010) [4] studied that social relationships—both quantity and quality—affect mental health, health behavior, physical health, and mortality risk. There are significant role played by Sociologist for establishing the link between social relationships and health outcomes, identifying explanations for this link, and discovering social variation (e.g., by gender and race) at the population level. Studies showed the social relationships have short- and long-term effects on health, for better and for worse, and these effects emerge in childhood and cascade throughout life to foster cumulative advantage or disadvantage in health. This article depicts key research themes for the study of social relationships and health, and policy implications are suggested by this research.

Need and significance of the study

According to Hallahan and Kauffman (1978), "Special education is a specially designed instruction which meets the needs of exceptional students, through spend materials and techniques." [7] The needs of children with intellectual disability are different from other children with their same age group. Keeping these point of view special educators and researcher always put their effort in order to overcome from their limitation and improve their skills by using or applying different materials, strategies and techniques.

So in the present study investigator has used the social contact activities as a strategy to evaluate the feeding skills among children with trainable intellectual disability. Though having meal is a general behaviour but it require some specific skills in which children with intellectual disability often lacking behind. That ultimately affects their nutritional requirement and also their socialization process. Social contact has a potential to impact the behaviour of children, skills, their socialization, personal adjustment abilities and as well as adaptive skills which is very important for day today life. In order to consider the relevance of feeding skill, investigator selected this strategy to evaluate impact of social contact on meal time skills among children with intellectual disability.

Objective

- To assess the impact of Social Contact on Meal Time Skills among Children with Intellectual Disability.

Hypothesis

- There is no significant impact of Social Contact on Meal Time Skills among Experimental group of Children with

Intellectual Disability.

- There is no significant impact on Meal Time Skills among control group of Children with Intellectual Disability.
- There is no significant difference of impact of Social Contact on Meal Time Skills among Children with Intellectual Disability with respect to gender.

Methodology

The present study employed quasi experimental as pre-test post-test Non-Equivalent group designs is used. Non-Probability sampling design and purposive sampling technique has been used to select the sample of 12 students with moderate intellectual disability between 7-10 years studying in primary level in Sanjeevani Special Education School, Chandauli, Uttar Pradesh.

Description of the tool

- **Case Record Data Sheet:** The investigator prepared a Case Record data sheet for collecting personal information about children and their parent's age, sex, types and level of disability, health, educational qualification and locality.
- **Madras Developmental Programming System (*MDPS) - Behavioural Scale*** is designed to provide information about the functional skills of the persons with mental retardation for the purpose of individualized programme planning. The scale comprises 18 domains and each domain have 20 items, so there are total 360 items in the scale. The MDPS was designed to assess adaptive behaviours, through the use of the Behavioural Scale and to produce documents that would facilitate the process of Individualized Programme Planning (IPP). This scale was developed by **Prof. P. Jeyachandran and Prof. V. Vimala** in 1975. For assessing the functional or adaptive behaviour of the children with intellectual disability the Meal time activity domain have been selected consisting of 20 items. The items arranged in the order of increasing difficulty. The rating of "A" for the successfully performed behaviour on the scale and "B" for unsuccessful behaviour. And finally count all 'As' scored items and 'Bs' scored items.

Social Contact Activity: In order to select suitable social contact activity, the researcher went through different books and also collected 10 experts opinion in order to organize recess time activities in which involved special educators, parents of the children with intellectual disability and their siblings and selected activities such as one minute game, musical chairs, spoon race etc. and with especially focus on lunch time activities in group of the children with intellectual disability.

Procedure

After getting the permission from the authority and consent of the selected sample's parents for the study, the basic information of each child has been collected by using the case record data sheet. Before the intervention, the pre-test was conducted for base line achievement on Meal Time skills by using the selected Meal Time Activities domain of the MDPS. The recess time was utilized for above mentioned social contact activities i.e. continued as intervention for twenty days. After the 20th sessions the researcher conducted the post-test by using the same tool used for the pre-test to evaluate the effectiveness of social contact on meal time skills.

Result and Discussion

Table 1: Mean values, SD and t-value of pre and post test scores of Social Contact on Meal Time Skills among Experimental group of children with ID

Experimental group	N	Mean	SD	't' value
Pretest	6	4.5	1.05	4.58**
Posttest	6	8.67	1.97	

Maximum score: 20

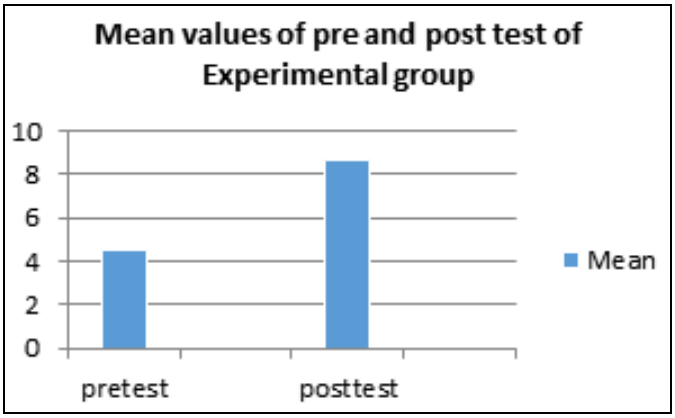

Fig 1

Table 1 shows the pre and post-test Mean values, SDs and t'value of social contact on meal time skills (both male and female children with intellectual disability). As the obtained t-value i.e. 4.58** is more than that of the table value, and its p-value is <0.00101, it can be inferred that, there is statistically significant difference at 0.05 level between pre-test and post test scores. A close observation of the mean values reveals that there is significant increase in the post test scores of the students than that of pre test scores. Hence it can be concluded that social contact activities have highly significant impact on meal time skills among children with intellectual disability.

Table 2: Mean values, SD and t-value of pre and post test scores of Meal Time skills among control group of children with ID

Control group	N	Mean	SD	't' value
Pretest	6	4.67	0.82	0.54
Posttest	6	5.0	1.27	

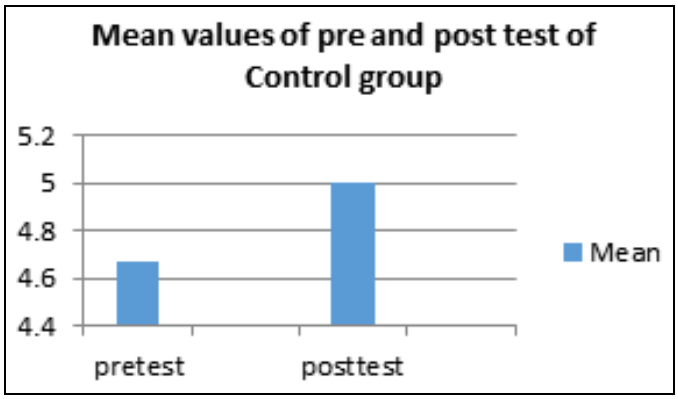

Fig 2

Table 2 shows the pre and post-test Mean scores, SDs and t'value of control group children with intellectual disability. The pre and post-test means are 4.67 and 5.0, SD is 0.82 and 1.27 respectively. It has been found that the calculated t-value 0.57 is less than that of the table, so there is no statistically significant difference between pre - test and post test scores. Hence it can be concluded that the null hypotheses has been rejected and the control group does not have significant impact on meal time skills of children with intellectual disability.

Table 3: Mean Values, SD and t-value of pre and post test scores of Social Contact on Meal time skills among children with ID with respect of gender

	Female				Male			
	N	**Mean**	**SD**	**'t' value**	**N**	**Mean**	**SD**	**'t' value**
Pretest	3	5.0	1	4.43**	3	4.0	1	2.75**
Posttest	3	9.67	1.53		3	7.67	2.08	

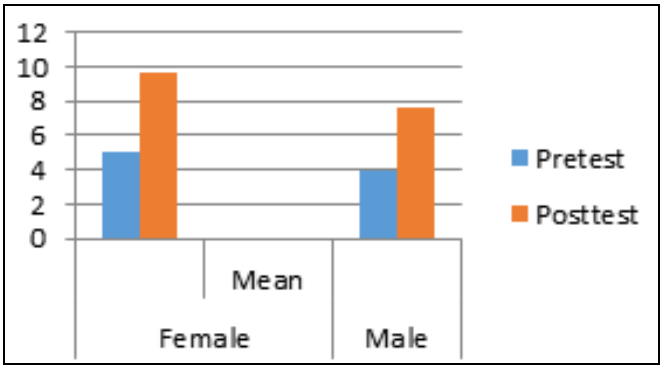

Fig 3

Table 3 shows the pre and post-test Mean scores, SD and t'value of meal time skills among children with intellectual disability in both groups such as male and female. The pre and post-test means scores of female group are 5 and 9.67. SD is 1 and 1.53 respectively. As the obtained t-value 4.43** is more than that of the table value, it can be inferred that, there is statistically significant difference at 0.05 level between pre-test and post test scores of female children with intellectual disability. The pre and post-test means scores of male group are 4 and 7.67. SD is 1 and 2.08 respectively. As the obtained t-value 2.082** is more than that of the table value, it can be concluded that, there is statistically significant difference at 0.05 level between pre-test and post test scores of male children with intellectual disability. The result of the analysis shows that social contact activities have significant effect on meal time skills among children with intellectual disability with respect to gender.

Findings of the study

It has been found that there is a significant improvement in meal time skills among experimental group of primary level children with moderate intellectual disability through social contact activities. In the pre – test the performance mean and SD is 4.5, 1.05 respectively and the post – test mean and SD scores have been observed as 8.67 and 1.97. The t-value of the pre and post test scores is 4.58**, which showed highly significant impact.

It is found that there is no significant improvement in the meal time skills among control group of children with intellectual disability. The pre and post-test means scores of the control group are 4.67and 5.0. SD is 0.82 and 1.27 respectively. The t-value 0.54 is less than that of the table value, so there is no statistically significant difference between pre - test and post test scores among control group.

The pre and post-test means scores of female children are 5.0 and 9.67. The SD scores of the female pre and post-test is 1 and 1.53 respectively. The t-value is found 4.43**, that is greater than that of the table value, which show the significant difference between pre and post test scores. The pre and post-test means scores of male children are 4.0 and 7.67. The SD scores of the male pre and post-test is 1 and 2.08 respectively. The t-value is found 2.75**, that is greater than that of the table value, that shows the significant difference between pre and post test scores. The data analysis shows the positive impact of social contact activities on meal time skills.

Conclusion

This study revealed that there is significant impact of social contact on meal time skills among children with moderate intellectual disability in experimental group as well as with respect to gender. By the data analysis, it can be concluded that there is an influence of social contact on meal time skills more on female children with intellectual disability than that of the male children with intellectual disability. The study confirms that the meal time skills can be taught and improved through the social contact activities. The analysis of data rejected the two null hypotheses and accepted one hypothesis which proved that social contact has a significant role in meal time skills among primary level children with moderate intellectual disability.

Suggestions

The result of the study indicates that the social contact activities are also an effective way of teaching the various concepts and skills as other methods of teaching. As some parents hide their special children from their social world, which can affect the growth of the child, so the result of the study emphasized the importance of positive role of social contact in children's life. The result of the study supports to the special educators for using the social contact as teaching method to improve meal time skills, various skills and concepts. It would be helpful for the children with intellectual disability, in which area they are found difficulties. The impacts of social contact activities can be also seen in different groups of children belong to various levels of intelligence, socio economic status and educational background.

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