

# **“A Pre-Experimental Study To Assess The Effectiveness Of Selected Nursing Intervention On Social Interaction Skills Among Mentally Challenged Adolescents In Selected Institution, Bareilly Uttar Pradesh.”**

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## **Abstract**

*A Pre-Experimental Study To Assess The Effectiveness Of Selected Nursing Intervention On Social Interaction Skills Among Mentally Challenged Adolescents In Selected Institution, Bareilly Uttar Pradesh.*

## **Introduction**

*The society never treats the mentally challenged adolescents like normal adolescents; they are stated as burden to the family and society. The mentally challenged adolescents have impaired social functioning, so they are neglected and isolated from the society. There are different negative attitudes towards these adolescents that start from the family itself, certain parents may reject their adolescents and some others may develop an attitude of super-protection there by hindering the development and degree of autonomy. The existing attitude of the family and the society towards the mentally challenged adolescents should be changed, people should come forward to help them to be a part of the society and to make them to live in touch with the outer world. Social skill training will help these adolescents to increase the social interaction, build self confidence, improve verbal and non verbal communication and foster independence leading to further social development and help the adolescents to form their own peer group with whom they can share their feelings and create their own world where they have someone to hold their hands. The aim of the selected nursing intervention given to the mentally challenged adolescents is to enhance their social interaction skills in the society.*

## **Objective**

*To assess the pre intervention level of social interaction skills and to assess the effectiveness of selected nursing intervention on social interaction skills among mentally challenged adolescents.*

## **Research Approach**

*Quantitative research approach.*

## **Methodology**

*Pre –experimental one group pre test and post test design.*

## **Setting**

*State Institute For Mentally Challenged Children in Bareilly , Bareilly Uttar Pradesh.*

## **Samples**

*200 mentally challenged adolescents with mild (IQ: 50-70) and moderate (IQ:35-50) IQ.*

## **Measurement and tool**

*Modified social skill activity checklist given by National Institute of Mental Health to assess the level of social interaction skills among mentally challenged adolescents. Both descriptive and inferential statistics were used for data analysis.*

## **Results**

*The findings of the study revealed that the mean difference score was 18.8 and the calculated „t“ value 22.675 which showed that there was significant improvement between the pre and post intervention level of social interaction skills among mentally challenged adolescents at  $p < 0.001$  level, thus the selected nursing interventions had a beneficial effect on social interaction skills among mentally challenged adolescents.*

## **Discussion**

*Selected nursing intervention was found to be effective on social interaction skills among mentally challenged adolescents.*

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**Implications**

The nurses in practice who form the majority in the health care settings and who remain constantly with the client in providing care should undergo social skill training; this would help the nurses to communicate effectively with the mentally challenged adolescents by using verbal and nonverbal communications. The nurse should be able to determine the acceptable and unacceptable behaviours of the adolescents and must demonstrate, provide close supervision and train the adolescents in basic skills like table manners, thereby assisting them to meet the nutritional needs.

Nurses in the clinical area should be provided with in-service education, emphasizing the social skill training for mentally challenged adolescents. The present curriculum needs to be focused on various aspects like well being of mentally challenged adolescents and communicating with them. Nurse administrator should formulate a policy regarding the planning and designing of play area in the ward, that should also include art activities like palm printing, sticker collage and hand print wreaths for the mentally challenged adolescents.

In nursing research the youngsters should be motivated to take up various studies that help to identify the needs for the mentally challenged adolescents and use of training programmes to meet these needs.

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**I. Introduction**

**Background Of The Study**

Every child comes with a message that God is not yet discouraged of men. Children are loved by all because of their innocence & naughtiness, they are extreme in expressing joy & sorrow. But the mentally challenged adolescents are different, they need special care as compared to the normal adolescents. They are much innocent because if they grow up then also they don't realize the cruelty of this world, they remain as children even though they become adult. Mentally challenged adolescents lack social behaviors which are set by the society, so they are neglected and isolated from the society, they encounter many problems in the society and find it difficult in exercising their rights to live in the society, to share space, work & housing with others. Certain narrowness exists in our society to accept them.

In 1895 the mentally challenged children were called as “idiot”, “moron” & “imbecile”, but later this was replaced by the word “retarded”. At present the word retarded is also been changed by the words like “special” or “challenged”. (Wikipedia)<sup>103</sup>.

Mental retardation was defined as a central nervous system dysfunction producing an IQ below 70, this results in significant deficiencies of two or more life skills, such as self direction, academic skills, social skills, communication, health & work (American Psychiatric Association Diagnostic & Statistical Manual of Mental Disorders - DSM IV-TR, 2020)<sup>100</sup>.

Mental retardation was defined as a condition of arrested or incomplete development of mind which is especially characterized by impairment of skills manifested using the development of mind which is especially characterized by improvement of skills manifested using the developmental period, which contributes to the overall level of intelligence that is cognitive, language, motor & social abilities (International Classification of Disease – 10)<sup>101</sup>.

Mental retardation was defined as a particular state of functioning that begins in childhood and is characterized by significant limitation both in intellectual functioning and in adaptive behaviour, as expressed in conceptual, social and practical abilities. (American Association of Mental retardation -AAMR, 2022)<sup>97</sup>.

The mentally challenged children were classified in four different degrees as mild, moderate, severe & profound. (American Psychiatric Association Diagnostic & Statistical Manual of Mental Disorders - DSM IV-TR)<sup>92</sup>.

**Global Scenario**

The worldwide prevalence of mentally challenged children was estimated to be between 1 to 3%. (WHO 2021)<sup>89</sup>.

The mental retardation rate in school aged children who are receiving special education is approximately 1% (US department of education for children with mental retardation, 2020)<sup>94</sup>.

The number of mentally challenged children in the world was 60 million (WHO, 2017)<sup>102</sup>. Worldwide census of mentally challenged children was as given below:

COUNTRIES	PERCENTAGE
INDIA	10.3%
USA	20%

UK	18%
JAPAN	5%
SRILANKA	5%
NEPAL	5%

**Indian Scenario**

The total rate of mentally disabled in India was 48.5% & mentally challenged children contributed about 10.3% (**National Interactive Portal on disability – Punarbhava, 2021**)<sup>90</sup>.

SLNo.	States/Union Territory	Mental Disability in Numbers
1)	Uttar Pradesh	2, 86,494
2)	West Bengal	2, 70842
3)	Maharashtra	2,13,274
4)	Bihar	1,65,319
5)	Lakshadweep	216

In Bareilly Uttar Pradesh no overall prevalence study has been conducted. The census showed 0.5% to 1% per 1000 birth were mentally challenged among children up to 6 years of age in General hospital Bareilly. (**Mental Health Status of Bareilly Uttar Pradesh, 2021**)<sup>95</sup>.

The prevalence of mentally challenged children in Ernakulum was reported as 14.57 per 1000 live births (**Shaji et al, 2015**)<sup>98</sup>.

A significantly high frequency of mentally challenged children were reported in Bareilly Uttar Pradesh because of high level of natural radioactivity in the monazite areas due to high concentration of thorium, the radioactive levels varies between & 35 MGV per year in various sectors (**Dhavendra Kumar**)<sup>91</sup>.

As greater numbers of mentally challenged adolescents are reintegrated into the communities, there is an increasing importance of teaching them with appropriate social skills. Social skill include a set of skills that allow people to communicate relate & socialize with others, this may include both verbal & nonverbal forms of communication. Many factors may inhibit the social development of mentally challenged adolescents; these factors may include low intellectual growth, degree of impairment, the brain pathology & the environmental set up in which a child grows up.

**Need For The Study**

All adolescents need love & care but society never treats the mentally challenged adolescents like normal adolescents, they are stated as burden to the family and society and are not seen as the full citizen of the society. The society views them as incapable, incompetent in their capacity for decision making & development.

There are different negative attitudes towards these adolescents that starts from the family itself, certain parents may reject their adolescents & may not provide proper care & love, where as some others may develop an attitude of super- protection by showing praise worthy concern & dedication towards the adolescent there by hindering the development and degree of autonomy. There exist certain societal attitudes towards these adolescents that they are incapable of learning anything & so everything has to be done for them.

People show their empathy towards these adolescents but never think that these adolescents if trained can learn a great deal and can lead at least partially independent lives as other adolescents. The investigator strongly believes that the existing attitude of the family and the society towards the mentally challenged adolescents should be changed; these adolescents must not be neglected or avoided in the family and the society. People should come forward to help them to be a part of the society and to make them to live in touch with the outer world. Although social skills are inherent the investigator believes that the mentally challenged adolescents are capable of learning social skills, but they require much time to learn as compared to the normal adolescents. Working hard with them and patience will help them to learn social skills & become more independent.

A descriptive study to assess the social development among 35 mentally challenged children using Vineland Social Maturity Scale & Stanford Binet intelligence scale. The study results revealed that there was significant relationship between the measures of social maturity scale & the IQ of the subjects, as the severity of the retardation increases social development also decreases and the age does not have any effect on social development and social quotient increases from profound to mild level of retardation (**Indrabhushan Kumar I et al, 2019**)<sup>62</sup>.

A pre-experimental study to assess the effectiveness of art activities using studio spaces together in three sections of asylum, voice and vocations among mental health clients using narrative enquiry. The study results revealed that community based art activities may provide opportunities for mental health clients to make friends become more socially engaged and have greater sense of belonging (**Theodore Stickely T, 2020**)<sup>83</sup>.

The investigator during her visit to school for mentally challenged children found that the adolescents need to be reinforced for social skills especially table manners, these skills must be taught which may allow mentally challenged adolescents to communicate, relate and socialize with others and make them a part and parcel of the society. Social skill training will help these adolescents to increase the social interaction, build self confidence, improve verbal and non verbal communication and foster independence leading to further social development and help the adolescents to form their own peer group with whom they can share their feelings and create their own world where they have someone to hold their hands.

### **Statement Of The Problem**

A pre-experimental study to assess the effectiveness of selected nursing intervention on social interaction skills among mentally challenged adolescents in selected institution, Bareilly Uttarpradesh.

### **Objectives**

- 1.To assess the pre and post intervention level of social interaction skills among mentally challenged adolescents.
- 2.To assess the effectiveness of selected nursing intervention on social interaction skills among mentally challenged adolescents.
- 3.To associate the mean difference of social interaction skills score among mentally challenged adolescents with selected demographic variables.

### **Operational Definitions**

#### **Effectiveness**

Refers to outcome of selected nursing intervention on social interaction skills among mentally challenged adolescents by using modified social skill activity checklist based on National Institute of Mental Health, Bangalore.

#### **Selected Nursing Intervention**

Refers to intervention given by the investigator & the research assistant to the mentally challenged adolescents on social interaction skills such as non verbal, verbal, good behaviour management skills and table manners by using following methods:

#### **Teaching**

Refers to the verbal information given by the investigator & the research assistant regarding social interaction skills that include non verbal, verbal, good behaviour management skills and table manners.

#### **Training**

The investigator along with the research assistant trains the mentally challenged adolescents to perform social skills by future ways.

- ❖ **Visual Aids:** Refers to the pictures prepared by the investigator to teach the mentally challenged adolescents of persons such as doctors, nurses, teachers and police to whom they can approach for help.
- ❖ **Doll activities:** Refers to those activities shown by the investigator about human body parts to the adolescents and make them to do the same.
- ❖ **Common objects:** Refers to the objects such as balls, spoon, glasses and pictures of familiar objects that are showed by the investigator to make the adolescents point out those objects that are being used in their day to day life.
- ❖ **Greeting cards:** Refers to the cards which is made by the investigator and is given to the adolescents to make them say the word thank you.
- ❖ **Art Activities:** Refers to the activities given by the investigator by sharing things. The activities include:
- ❖ **Sticker collage:** Investigator gives stickers and asks the adolescents to stick them in paper.
- ❖ **Palm printing:** Adolescents are made to dip hands in colorful paints and asked to imprint them in the paper.
- ❖ **Hand print wreaths:** Palm printing further decorated with glitter glue, ribbon piece and colorful button.
- ❖ **Appreciation:** Refers to the encouragement given to the adolescents to perform a given task, after the completion of task the investigator appreciates the adolescents by praising them, giving applause, shaking hands, tapping their shoulders and by giving them chocolates.

#### **Social Interaction Skills**

Refers to the social skills that exist among the mentally challenged adolescents. This may include the

following:

**Non Verbal Interactive Behavior Skills:**

Refers to messages or responses that are expressed in actions and not in words, such as:

- ❖ Response to own name.
- ❖ Listen to others talk.
- ❖ Identifies human persons and community helpers.
- ❖ Waves good bye.
- ❖ Social smile.

**Verbal Interpersonal communication Skills:**

Refers to messages or responses that are expressed in words such as:

- ❖ Greets others.
- ❖ Says “Thank You” for others help and gifts.
- ❖ Says please for asking favors from others.
- ❖ Points & tells the body parts when asked verbally.
- ❖ Points & tells the common objects of their use.

**Good Behaviour management skills:**

Refers to social behaviors elicited by the adolescents which are related to social norms, such as:

- ❖ Waits for the needs to be fulfilled.
- ❖ Obeys commands.
- ❖ Returns borrowed materials.
- ❖ Ask permission to take others belongings.
- ❖ Plays with peer sharing objects.

**Table manners:** Refers to the actions and the behavior considered to be socially correct that the adolescents should follow when eating a meal with other people, such as:

- ❖ Setting the table properly and arrangement of dishes.
- ❖ Washing hands and rinsing of mouth properly before and after food.
- ❖ Serving the food without spilling.
- ❖ Eating the food without spilling.
- ❖ Clearing the table and cleaning the utensils properly.

**Mentally Challenged Adolescents**

Refers to adolescents with mild (50-70) and moderate (35-50) IQ, belonging to the age group from 15 to 18years.

**Assumptions**

1. Mentally challenged adolescents may have some level of social interaction.
2. The selected nursing intervention may enhance the level of social interaction among mentally challenged adolescents.

**Null Hypotheses**

**NH<sub>1</sub>:** There is no significant difference in the pre and post intervention level of social interaction skills among mentally challenged adolescents at  $p < 0.05$ .

**NH<sub>2</sub>:** There is no significant association of mean difference level of social interaction skills among mentally challenged adolescents with the selected demographic variable at the level of  $p < 0.05$ .

**Delimitation**

The study is delimited to a period of 4 weeks.

**Conceptual Framework**

The conceptual framework or model was made up of concepts that are mental image of phenomena. These concepts are linked together to express their relationship between them.

The study was designed to assess the effectiveness of selected nursing intervention on social interaction skills among mentally challenged adolescents. The conceptual model for the study was based on “**Kathryn E Barnard’s Parent/Caregiver –Child Interaction Model**” (Basvanthappa, 2003)<sup>3</sup>.

Barnard viewed the caregiver and the child as an interactive system, the theorist stated that the

caregiver-child system was influenced by individual characteristics of each member and the individual characteristics were also modified to meet the needs of the system. Modification was defined as adaptive behaviour.

The theory components are

- Caregiver characteristics:
  - i. Caregiver sensitivity to child’s cues.
  - ii. Caregiver ability to alleviate the infant distress.
  - iii. Caregiver social and emotional growth fostering activities.
  - iv. Caregiver cognitive growth fostering activities.
  
- Child characteristics:
  - i. Infant clarity of cues.
  - ii. Child responsiveness to caregiver.

#### **Care Giver Characteristics:**

The caregiver’s ability involves the caregiver’s recognition of distress, sensitivity to cues, selection to cues, selection of appropriate action and being available to recognize and respond, alleviation of distress and providing growth fostering situation to the child.

Here the investigator identifies the mentally challenged adolescents who need to gain more social interaction skills, assesses the level of social interaction skills among mentally challenged adolescents. The selected nursing intervention was provided to the mentally challenged adolescents, which includes nonverbal interactive behaviour skills, verbal interpersonal communication skills, good behaviour management skills, table manners. It alleviates the distress and enables to provide growth fostering situation which includes social, cognitive, emotional, growth.

#### **Child Characteristics**

The child’s ability to respond to caregiver’s attempts to communicate and interact. In describing the child, Bardnard used the personal characteristics of physical appearance, temperament, feeding, sleeping patterns and self regulation.

Here the child characteristics include clarification of cues and responsiveness of the child to caregiver. The response of the mentally challenged adolescents either may be positive response showing adequate social interaction skills or negative response showing moderately adequate social interaction skills and inadequate social interaction skills. This was assessed through post intervention level of social interaction skills using modified social skill activity checklist based on National Institute of Mental Health. For positive outcome, the intervention has to be enhanced that is following of selected nursing intervention and for negative outcome, reassessment is recommended.

The caregiver characteristics are made based on child’s characteristics. It is a process where the caregiver intervention is based on child’s response.

#### **Outline Of The Report**

**Chapter I:** Dealt with the back ground of the study, need for the study, statement of the problem, objectives, operational definitions, null hypotheses, assumptions, delimitations and conceptual frame work.

**Chapter II:** Focuses on review of literature related to the present study.

**Chapter III:** Enumerates the methodology of the study.

**Chapter IV:** Presents the data analysis and data interpretation.

**Chapter V:** Deals with the discussion of the study

**Chapter VI:** Gives the summary, conclusion, implications, recommendations and limitations of the study.

The study report ends with selected Bibliography and Appendices.

## **II. Review Of Literature**

This chapter deals with related literature review which includes a written state of existing knowledge on the research problem. The review of literature includes a broad comprehensive, in depth systematic and critical review of scholarly publications, unpublished scholarly, print materials, and personal communication on the study topic.

The literature search has been classified into various sections such as:

**SECTION A:** Review related to socialization among mentally challenged adolescents.

**SECTION B:** Review related to behavioral problems among mentally challenged adolescents.

**SECTION C:** Review related to communication pattern among mentally challenged adolescents.

**SECTION D:** Review related to table manners for mentally challenged adolescents.

**Section A: Review Related To Socialization Among Mentally Challenged Adolescents.**

**Becker E and Dusing S, (2020)<sup>51</sup>** conducted a case study to assess the participation in the community recreation activities that enhances the social, emotional & physical development among a 11 year old female with down syndrome & mild cognitive impairment. The study findings revealed that the community recreation activities & art programs enhance appropriate socialization in the child.

**Howe P and Hancoxl, (2020)<sup>61</sup>** conducted a pre-experimental study to assess the effectiveness of an exercise group on promoting healthy life styles among young adults with learning disabilities in North Devon with the help of a local qualified fitness instructor and personal trainer. The study results revealed that the people not only lost weight but this also helped them to socialize and make new friends.

**Siperstein GN; et al (2019)<sup>81</sup>**, conducted a descriptive study to assess the social acceptance of children with or without intellectual disabilities among 67 children of which 29 were having mild intellectual disability in a summer recreational program in USA. The study results revealed that children with or without intellectual disabilities made at least one new friends with intellectual disability.

**Lippold T and Burns J, (2019)<sup>69</sup>** conducted a comparative study to assess the social relationships of 30 people with mild intellectual disability and 17 people with physical disability. The study results revealed that people with intellectual disability had more restricted social networks than people with physical disability.

**MacMahon P and Jahoda A, (2018)<sup>71</sup>** conducted a comparative study to assess the role of sociocognitive factors in depression with people who have a mild intellectual disability among 18 depressed versus 18 non depressed participants in UK. The study results revealed that there exist an association between negative social comparison and depressed mood; depressed participants reported significantly more negative social comparison as compared to the non depressed participants.

**Wang YX; et al (2017)<sup>88</sup>**, conducted a comparative study to assess the social adaptation of Chinese children with down syndrome among 36 down syndrome children, a group of 30 normally-developing children matched for mental age (MA) and a group of 40 normally-developing children matched for chronological age (CA) using structured interview and Peabody Picture Vocabulary Test (PPVT) in China. The study findings revealed that there was no difference between the down syndrome group and the MA group in terms of communication skills. However, the down syndrome group scored much better than the MA group in self-dependence, locomotion, work skills, socialization and self-management. Children in the CA group achieved significantly higher scores in all aspects of social adjustment than the down syndrome children.

**De Bild A; et al (2015)<sup>53</sup>**, conducted a comparative study for the assessment of social skills in children with intellectual disabilities with and without autism among 363 children with mild intellectual disabilities (ID) and 147 with moderate ID with and without autism using Children's Social Behaviour Questionnaire (CSBQ) & Vineland Adaptive Behaviour Scales (VABS) in Netherlands. The study findings revealed that there is a slight difference between the subtle social skills among children with intellectual disabilities with & without autism, the children with autistic symptomatology & ID lack communication skills & measuring basic social skills should also include communicative skills and subtle social skills.

**Joanne Bielecki and Stephen L, (2014)<sup>65</sup>** conducted a descriptive study for the assessment of social functioning in individuals with mental retardation. The study findings showed that there is an established relationship between social skills and maladaptive behaviors and demonstrates that the social competence of individuals with MR and co morbid psychopathology can be enhanced with social skills training. The researcher concludes that however, to design an effective training package, an accurate assessment of adaptive and social functioning must first be conducted that includes behavioral observations, role-playing, and checklists.

**Malley SM; et al (2012)<sup>72</sup>**, conducted a pre-experimental study to assess the effects of visual arts instruction on mental health among 5 young adults with mental retardation and mental illness by dividing the section in two, in section 1 they were taught with three chosen art activities and in section 2 an instructional package was used to promote personally expressive behaviors. The study findings revealed that after learning the skills in section 1 participants in section 2 displayed improvements in occurrence of behaviors associated with mental illness, increase in personally expressive behaviors and socialization.

**Goodman JF; et al (2020)<sup>60</sup>**, conducted a study to assess the effects of early intervention in acquisition of adaptive skills among 35 preschool mentally challenged children who were treated in special hospital based program, they were provided with play therapy, behavior modification technique & 36 mentally challenged children at the same hospital clinic who received preschool services in the community. The study results revealed that acquisition of adaptive skills depends upon the better social circumstances & the outcome was unaffected by sex, IQ level, initial age or social status.

**Meredith RL & Saxon S, (2020)<sup>74</sup>** conducted a comparative study to assess the effects of social skill training with 20 moderately mentally challenged children with both male & female respondents to group behavior social skill training & control group kept in the invivo social situation. The study results revealed that group behavior social skill training are more effective than the control condition in increasing positive social behavior.

**Siperstein GN and Leffert JS, (2017)<sup>80</sup>** conducted a comparative study to assess the social acceptance and rejection of children with mental retardation among 764 children in 34 regular education classrooms using sociometric surveying in Boston USA. The study findings identified 20 socially accepted and 20 socially rejected students with mental retardation, accepted children displayed a higher level of social behavior and a lower level of sensitive-isolated behavior, the two groups also differed in their social cognitive skills and in response to social problems, accepted children choose friendly-submissive goals and generated a low rate of positive outgoing strategies, whereas rejected children chose friendly- assertive goals and generated a high rate of positive outgoing strategies.

**Langone J; et al (2015 )<sup>68</sup>,** conducted a true experimental study to assess the Initial acquisition and generalization of social skills among high school students with mild mental retardation using social skills training game & outside of the training setting (immediately preceding and following training, and 6 weeks post training) in Athens USA. The study results revealed that generalization of skills to non training environments would be minimal; students demonstrated acquisition of social skills across game conditions, immediate generalization of trained social skills did not occur and there was a possible "deferred generalization" effect that was evidenced at 6 weeks post training.

#### **Section B: Review Related To Behavioral Problems Among Mentally Challenged Adolescents.**

**Csorba J; et al (2021)<sup>52</sup>,** conducted a descriptive study to investigate the frequency and severity of the behavioral symptoms among 269 intellectually disabled people with mild, moderate and profound retardation in the residential care at Hungary using Behavioral Problem Inventory (BPI). The study finding revealed that 72% of the intellectually disabled people living in the residential care displayed behavioral problems.

**Bakare MO; et al (2020)<sup>50</sup>,** conducted a descriptive study to assess the prevalence of pattern of behavioral problem among 44 Nigerian children with intellectual disability using teacher’s rated strength and difficulty questionnaire. The study findings revealed that 21 children with intellectual disability have behavioral problems and incidence of conduct and hyperactivity were more among males as compared to females. The study concluded that there is an urgent need for establishment of school based mental health programs.

**SadrossadatLeyla and SadrossadatSeyyed Jalal, (2020)<sup>78</sup>** conducted comparative study to assess the adaptive behaviors among 246 normal individuals and 74 mentally retarded children (7-18 years of age) in Tehran, Iran using Adaptive Behavioral Scale, Residential & Community” (ABS-RC: 2). The study findings revealed that the following domains like independent functioning, economic activity, language development, number & time, prevocational/vocational activity, self-direction, responsibility, socialization, disturbing interpersonal behavior, domestic activity, social engagement, conformity and trustworthiness were significantly lower in mentally retarded children than in normal individuals.

**Embregts PJ; et al (2019)<sup>57</sup>,** conducted a descriptive study to assess the behavioral problems in children with mild intellectual disabilities among 45 children attending schools for special education using parent stress index, child rearing situation questionnaire & the strengths & difficulties questionnaire for parents, teachers & children in Netherland. The study findings revealed that parents of the children with behavior problems were found to feel less competent, more socially isolated, less satisfied about their relationship with their partner & indicate more negative life occurrence than the parents of the children without behavior problems.

**Van Nieuman M; et al (2019)<sup>86</sup>,** conducted a descriptive study to assess the relationship with externalizing behavior, therapeutic context (community care vs residential care) and social problem solving by children with mild and borderline intellectual disabilities, among 186 children (12 to 14 years of age) who responded to a video based social problem-solving task and 130 who received residential care in Netherland. The study results revealed that externalizing behavior was related to encoding, generation of aggressive responses and negative evaluation of assertive responses and therapeutic context was related to encoding, positive evaluation of assertive responses and negative evaluation of aggressive responses.

**Embregts PJ; et al (2019)<sup>93</sup>,** conducted a descriptive study to assess the effects of contextual variables over the aggressive behavior in individuals with mild to borderline intellectual disabilities among 87 direct-care staff members of 87 clients with aggressive behavior who live in a residential facility in Netherland using Contextual Assessment Inventory (CAI) and a questionnaire on demographic information and types, frequency and severity of aggressive behavior. The study findings revealed that both social and task-related events were reported to evoke aggressive behavior of clients most often, Negative interactions, task characteristics and daily

routines relatively often evoked aggressive behavior while an uncomfortable environment, medication, illness and physiological states (i.e. physical and biological events) evoked aggressive behavior least often.

**Embregts P and Van Nieuwenhuijzen M, (2019)<sup>56</sup>** conducted a descriptive study on social information processing among 136 boys with a age group of (10- 14years), among them 26 were with autistic spectrum disorders and mild to borderline intellectual disability, 54 with mild to borderline intellectual disability without autistic spectrum disorders and 56 typically developing boys using social problem solving test in Netherland. The outcome of the study revealed that boys with autistic spectrum disorders and mild to borderline IQ have more behavioral problems as compared to the boys with mild to borderline IQ without autistic spectrum disorders.

**Ghosh M; et al (2018)<sup>59</sup>**, conducted a comparative study to assess the behavior in children with down syndrome among 8 children with Down syndrome who displayed autistic features and with 8 Down syndrome children without autistic features through random selection and were matched for age and level of retardation using Standardized Psychological tests in Mumbai . The study findings revealed that Down syndrome children without Autism Spectrum Disorder had better communication and socialization skills than children with Down syndrome with Autism Spectrum Disorder and Down syndrome children with Autism Spectrum Disorder displayed more restricted repetitive and stereotyped patterns of behaviors, interests and activities. The investigator concluded that the professionals should consider the possibility of a dual diagnosis which will entitle the child to a more specialized and effective educational and intervention services.

**Koritsas S; et al (2018)<sup>66</sup>**, conducted a quasi - experimental study to assess the effects of active support training on engagement, opportunities for choice, challenging behavior and support needs among 12 individual with ID residing in three group homes, and their support workers on three occasions (at baseline, post- training, and at follow-up) in Melbourne, Australia. The study findings revealed that the residents exhibited an overall decrease in anxiety, self-absorbed behavior, disruptive behavior, and problem behaviour.

**Douma JC; et al (2017)<sup>54</sup>**, conducted a comparative study to assess the prevalence of antisocial and delinquent behaviors among 526 youths (11 to 24 years of age) with mild or borderline disabilities and 1,030 youths(11 to 24 years of age) without intellectual disabilities in Netherland. The study findings showed an overall 10% to 20% of youths with intellectual disabilities exhibited some type of antisocial and delinquent behavior, which were quiet persistent over a 5 year period, youths who exhibited one kind of antisocial behavior were likely to also exhibit other types of such behaviors and boys as compared to girls with intellectual disabilities exhibited antisocial and delinquent behaviors more often than peers without intellectual disabilities.

**Lucavechi T; et al (2017)<sup>70</sup>**, conducted a case study to assess the self- injurious behavior in a patient with mental retardation for an 8-year-old girl with mental retardation using periodontal examination in Spain. The study findings revealed inflicted gingival lesions and self-injurious behavior, although the lesions are no longer present, the self-injurious behavior persists. The investigator concluded that psychological support must be provided to the child along with an oral removable appliance.

**McIntyre L; et al (2016)<sup>73</sup>**, conducted a comparative study to assess the importance of the transition to school for young children and their families among 24 young children with and 43 without intellectual disability in USA using child assessments, parent reports on standardized measures, direct observations of delay of gratification tasks and teacher reports on standardized measures. The study findings revealed that children with intellectual disability had significantly more teacher-reported problem behavior, poorer overall student-teacher relationships, fewer parent- and teacher-reported social skills and fewer self-regulation skills than typically developing children. The investigator concluded that the children with intellectual disability had less positive early school experiences so fostering early social skills may be an important target for increasing the positive adaptation to school for young children, especially those with intellectual disability.

**Van Nieuwenhuijzen M; et al (2015)<sup>85</sup>**, conducted a comparative study to assess the responses to hypothetical and real-life social problems in children with mild intellectual disabilities and behavior problems among 56 children with mild intellectual disability to hypothetical situations using Social Problem-Solving Test for children with MID (SPT-MID) were compared to their actual behavior in comparable staged using standardized real-life conflict situations and correlations to externalizing behavior problems were assessed using the Teacher's Report Form (TRF) in Netherlands. The results revealed that children with MID and accompanying externalizing behavior problems will behave more aggressively in the staged real-life conflicts and provide more spontaneous aggressive responses to the hypothetical vignettes than children with MID and no accompanying externalizing behavior problems and a moderate correlation was found between the aggressiveness of the spontaneous responses in the hypothetical situations and actual behavior in the staged real-life situations.

**Section C: Review Related To Communication Pattern Among Mentally Challenged Adolescents.**

**Vander Schuit M; et al (2021)<sup>87</sup>**, conducted a true experimental study to assess the effectiveness of early language intervention for children with intellectual disabilities among twenty eight children, ten children participated in the intervention and 18 were among the control. The study findings revealed that intervention group showed higher learning gains and greater progress than the control group, however the progress of the intervention children slowed down significantly following intervention. The investigator concluded that an early language intervention is needed to accelerate the language development of children with ID.

**Sowney M and Barr O, (2017)<sup>82</sup>** conducted a qualitative study to assess the challenges for nurses communicating with and gaining valid consent from intellectually disabled people within the accident and emergency care service among five focus group nurses working within the accident and emergency departments of five general hospitals selected through purposive sampling. The study findings revealed that effective communication was identified as the most challenging aspect in caring intellectually disabled people within this environment, having an impact on the assessment of needs, informing patients of their health status and seeking valid consent. The researcher concluded that the nurses need to have a greater awareness of learning disability and how to increase opportunities for effective communication and be very familiar with the issue and guidelines relating to consent, to ensure that people with learning disabilities have more choice, control and decision making regarding their health.

**Section D: Review Related To Table Manners For Mentally Challenged Adolescents.**

**Adolfsson P; et al (2020)<sup>49</sup>**, conducted a study to assess the social aspects of eating events in community living among 32 participants, 9 of whom lived in supported living & 23 in group homes with intellectual disability in Sweden. The study findings revealed that the participants in supported living were seldom social as compared to the participants in group homes.

**Shepherd TL (2019)<sup>99</sup>**, conducted a pre-experimental study to assess the effectiveness of teaching dining skills among 23 middle school and high school students with emotional and behavior disorders using a direct model approach that include introduction and instruction of the skill, modeling, peer involvement, role-playing, feedback, and reinforcement of desired social behaviors. The study findings revealed that the dining etiquette can provide many opportunities for students to learn appropriate interaction with peers and authority figures, recognize social cues, and learn social competence.

**VanBiervliet; et al (2020)<sup>104</sup>**, conducted a pre-experimental study to assess the effects of family style meal service on mealtime language among five retarded young adult male residents, who had some conversational skills and appropriate table manners using multiple baseline analysis across meals (dinner, lunch, and breakfast). The study findings revealed that during family style meals the participants spoke substantially more often than during institutional style meals, increases in peer-directed conversation and youths are spending more time with their meals.

**III. Research Methodology**

Methodology of research organizes all the components of study in a way that most likely will lead to valid answers for the problems that have been posted (**Burns and Groove, 2008**)<sup>35</sup>.

This chapter deals with the methodology adopted for the study. It includes the research design, variables, setting, population, sample, criteria for selection of the sample, sample size, sampling technique, development and description of the tool, content validity, pilot study, reliability of the tool, data collection procedure and plan for data analysis.

**Research Approach**

In the view of the nature of the problem and to accomplish the objectives of the study quantitative research approach was adopted.

**Research Design**

The research design used for this study was Pre-experimental one group pre test - post test design as it has no randomization and control. Based on **Polit and Hungler (2011)**<sup>39</sup> the framework for the study was done as:

<b>Group</b>	<b>Pretest O<sub>1</sub></b>	<b>Intervention X</b>	<b>Post test O<sub>2</sub></b>
Mentally challenged adolescents with mild(50-70) and moderate (35-50) IQ.	Assess the existing level of social interaction skills among mentally challenged adolescents by using modified social skill activity checklist based on National Institute Of Mental Health.	Selected nursing intervention on improvement of social interaction skills among mentally challenged adolescents.	Assess the post intervention level of social interaction skills among mentally challenged adolescents by using modified social skill activity checklist based on National Institute Of Mental Health.

## **Variables**

Variables are concepts which can take different values at different situations.

### **Independent Variable**

The independent variable for the present study was selected nursing interventions prepared by the investigator.

### **Dependent Variable**

The dependent variable for the present study was social interaction skills among mentally challenged adolescents.

### **Extraneous Variables**

The extraneous variables for the present study were age, gender, type of stay, degree of mental retardation, birth order, number of siblings, educational status and employment of the father, educational status, employment of the mother, type of family, habitat and family history of mental retardation.

### **Setting Of The Study**

The study was conducted at State Institute For Mentally challenged Children in Bareilly , Bareilly Uttar Pradesh. The institution at present has 100 residential and 230 non residential mentally challenged children.

## **Population**

### **Target Population**

The target population for the study includes all mentally challenged adolescents who are from 15 to 18 years.

### **Accessible Population**

The accessible population includes all the mentally challenged children at State Institute for Mentally Challenged in Bareilly, Bareilly Uttar Pradesh that is 250 mentally challenged children.

## **Samples**

The samples for the present study were mentally challenged adolescents with mild (IQ: 50-70) and moderate (IQ: 35-50) IQ, belonging to the age group from 15 to 18 years who fulfilled the inclusive criteria for the study.

## **Criteria For Sample Selection**

### **Inclusive Criteria**

1. Mentally challenged adolescents with mild and moderate IQ.
2. Mentally challenged adolescents who were in the age group from 15 to 18.
3. Mentally challenged adolescents who could understand Local Language.

### **Exclusive Criteria**

1. Mentally challenged adolescents who were suffering from major physical illness.
2. Mentally challenged adolescents who were not able to speak.

## **Sample Size**

The sample size consisted of 200 mentally challenged adolescents who were selected from State Institute For Mentally challenged Children in Bareilly, Bareilly Uttar Pradesh.

## **Sampling Technique**

Non probability purposive sampling technique was used to select the sample for the study.

## **Development And Description Of The Tool**

After an extensive review of literature, discussion with the experts in the field of pediatric, psychiatry and child psychology and with the investigator's personal experience, a modified social skill activity checklist given by National Institute of Mental Health was developed.

## **Section A: Demographic Variables**

**Part I: Adolescent demographic data:** Age, gender, type of stay, degree of mental retardation, Birth order and number of siblings.

**Part II: Socio – economic particulars of parents of mentally challenged adolescents.**

**Fathers Information:** Educational status, employment.

**Mothers Information:** Educational status, employment.

**Part III: Family history:** Type of family, habitat and family history of mental retardation.

**Section –B:**

Refers to modified social skill activity checklist given by National Institute of Mental Health for the improvement of social interaction. The observational checklist consists of total 20 items under 4 aspects like:

- ❖ Non Verbal Interactive behaviour skills.
- ❖ Verbal Interpersonal communication skills.
- ❖ Good behaviour management skills.
- ❖ Table manners.

**Scoring Key:**

Score	Interpretation
1	Never
2	Occasional
3	Always

RANGE	INFERENCE
< 50%	Inadequate level of social interaction skills.
51 – 75%	Moderate level of social interaction skills.
>75%	Adequate level of social interaction skills.

**Intervention Tool**

The intervention was given by the investigator and the research assistant on the following aspects:

**Non Verbal Interactive behaviour skills**

The required materials for the study (visual aids - pictures of persons like doctors, nurses, teachers & police) were priory prepared by the investigator and were kept ready for use. The investigator simulated certain situations that included both individual and group activity to make the adolescents follow non verbal interactive behaviour skills like responding to their own name, listening to others talk, identifying human service persons and community helpers, Waving good bye and social smile.

**Verbal Interpersonal communication skills**

The required materials for the study (doll, greeting cards and common objects – pictures of spoon, glass, plates, pencil, pen, books, sharpener, dress, shoes & balls) were priory prepared by the investigator and were kept ready for use. The investigator simulated certain situations that included both individual and group activity to make the adolescents follow verbal interpersonal communication skills like greeting others, saying thankyou for others help and gifts, saying please for asking favours from others, making them to point and tell the body parts and common objects of their use when asked verbally.

**Good behaviour management skills**

The required materials for the study included art activity materials such as palm printing (poster paint, brush, water, glass, plate & soap solution), sticker collage (cardboard, chart papers, glue, saturn ribbon, glitter glue & stickers of flowers, cartoons, fruits & animals), & hand print wreaths ( palm prints, glitter glue, ribbon pieces & kundhan stones) were priory prepared by the investigator and were kept ready for use. The investigator simulated certain situations that included both individual and group activity to make the adolescents follow good behaviour management skills like waiting for the need to be fulfilled, obeying commands, asking permission to take others belonging, returning of borrowed materials and playing with the peer sharing objects.

**Table manners**

The required materials for the study included (hand kerchief and soap solution) were priory prepared by the investigator and were kept ready for use. The investigator simulated certain situations that included group activity to make the adolescents follow table manners like setting the table properly and arrangement of dishes, washing hands and rinsing of mouth properly before and after food, serving the food without spilling, eating the food without spilling, clearing the table and cleaning the utensils properly.

### **Content Validity**

The content validity of the scale ascertained by opinion of the following field of expertise:

Paediatrician	-	2
Paediatric nursing specialist	-	2
Psychiatric nursing specialist	-	1
Clinical psychologist	-	1

Modifications like including the table manners as a separate component in the social interaction skills, appreciation for each activity and allotment of time for both individual and group activity were made as per the experts suggestions and was incorporated in the tool but the investigator was unable to include teaching the adolescents how to differentiate between good and bad touch as it was very difficult to make them understand. As per the experts consensus the tool was finalised.

### **Ethical Considerations**

Ethics is a system of moral values that is concerned with the degree to which the research procedures adhere to the professional, legal and social obligations to the study participants. **Polit and Hungler (2011)**<sup>39</sup>.

### **Beneficence**

The investigator followed the fundamental ethical principle of beneficence (doing good) by adhering to:

#### **The right to freedom from harm and discomfort.**

The investigator made the participants free from unnecessary risks for harm or discomfort during the study period.

#### **The right to protection from exploitation**

The investigator explained the procedure and nature of the study to the principal and the parents of the participants (mentally challenged adolescents) and ensured that none of the participants in the study will be exploited or denied fair treatment.

#### **Respect For Human Dignity.**

The investigator followed the second ethical principle with respect for human dignity. It includes the right to self determination and the right to self disclosure.

#### **The right to self-determination.**

The investigator gave full freedom to the parents of the participants to decide voluntarily whether to make their children participate in the study, to withdraw from the study and the right to ask questions.

#### **The right to full disclosure.**

The researcher has fully described the nature of the study, the parents of mentally challenged adolescents are given with the right to refuse participation and the researcher's responsibilities based on which the informed consent both verbal and written consent was obtained from the parents and principal of the residential and the non-residential mentally challenged adolescents.

### **Justice**

The researcher adhered to the third ethical principle of justice, it includes participant's right to fair treatment and right to privacy.

#### **The right to fair treatment**

The researcher selected the study participants based on the research requirements, no vulnerable or compromised candidates were selected as study participants. The investigator followed the same selected nursing interventions for all the mentally challenged adolescents.

#### **The right to privacy.**

The researcher maintained the participant's privacy throughout the study. The researcher maintained confidentiality of the data provided by the study participants.

### **Reliability**

The reliability of the tool was established by using Karl Pearson Correlation Coefficient Method. The reliability score obtained was = 0.87.

The „r“ value indicated a high positive correlation, which showed that the tool was reliable for conducting the main study.

### **Pilot Study**

**Setting:** Institute for Mentally Challenged Children.

**Sample size:** 20 mentally challenged adolescents with mild (50-70) and moderate (35- 50) IQ, belonging to the age group from 15 to 18years.

**Sampling:** Non-probability purposive sampling method.

### **Pilot Study Procedure**

A formal permission was obtained from the Principal, College of Nursing, & ethical clearance was obtained from the International Centre for Collaborative Research and written permission was obtained from the Principal of Institution for Mentally Challenged Children.

The Pilot study was conducted in the month of June 2023, for a period of 1 week from 6<sup>th</sup> June -13<sup>th</sup> of June, self introduction about the investigator and information regarding the nature of the study was explained to the Principal & co- teachers so as to get co-operation in the procedure of data collection for both the residential and the non residential adolescents. Privacy and confidentiality was maintained during the process of data collection and the data was collected for the stipulated period of 1 weeks.

The investigator selected 10 samples using non probability purposive sampling method, who fulfilled the inclusive criteria. A brief explanation was given on the purpose of the study to the parents of the nonresidential adolescents & signed consent was obtained. The verbal consent from the parents & the signed consent from the principal for the residential adolescents were obtained.

The required materials for the study are as given below:

#### **Non verbal interactive behaviour skills**

Visual aids like pictures of persons like doctors, nurses, teachers & police.

#### **Verbal interpersonal communication skills**

Doll, greeting cards and common objects like pictures of spoon, glass, plates, pencil, pen, books, sharpener, dress, shoes & balls.

#### **Good behaviour management skills**

Art activity materials such as :

- a. Palm printing - poster paint, brush, water, glass, plate & soap solution.
- b. Sticker collage - cardboard, chart papers, glue, saturn ribbon, glitter glue & stickers of flowers, cartoons, fruits & animals.
- c. Hand print wreaths - palm prints, glitter glue, ribbon pieces & kundhan stones.

#### **Table manners**

Hand kerchief and soap solution.

These materials were priory prepared by the investigator and were kept ready for use.

The pre intervention level of social interaction skills were assessed on 6<sup>th</sup> June by using the modified social skill activity checklist based on National Institute Of Mental Health for 10 mentally challenged adolescents. The pre intervention was conducted individually for each adolescent in a separate room that was classified as red.

The intervention was given for 3 days from 8<sup>th</sup> to 10<sup>th</sup> June between 8am & 4pm in pink room. The investigator appreciated the adolescents by praising them, giving applause, shaking hands, tapping their shoulders & by giving them chocolates after performance of a given task, if the adolescents misbehaved then as a negative reinforcement the investigator & the research assistant purposefully neglected them & as the adolescents calmed down the investigator made them understand that they were wrong.

The adolescents were left for 2 days on 11<sup>th</sup> & 12<sup>th</sup> June without any intervention and after that post intervention level of social interaction skills were assessed for 10 adolescents on 13<sup>th</sup> by using the modified social skill activity checklist based on National Institute of Mental Health. The post intervention was conducted individually for each adolescent in a separate room that was classified as blue.

The investigator expressed the issues faced during the pilot study presentation such as increasing the days for intervention and to provide continuous reinforcement after intervention rather than leaving them without any intervention. Hence the investigator was asked to increase the days of intervention from 3 days to 10 days and was asked to provide continuous reinforcement of 7 days after intervention.

### **Procedure For Data Collection**

A formal permission was obtained from the Principal, College of Nursing, & ethical clearance was obtained from the International Centre for Collaborative Research and written permission was obtained from the Principal of “State Institute of Mentally Challenged Children” in Bareilly, Bareilly Uttar Pradesh. The investigator & the research assistant underwent training on social skill for mentally challenged adolescents for a period of 1 week (20<sup>th</sup> to 27<sup>th</sup> December) from the Principal of “State Institute of Mentally Challenged Children” & a certificate of social skill training was issued.

The research study was conducted in the month of June 2023 from 17<sup>th</sup> June to 9<sup>th</sup> of July, self introduction about the investigator and information regarding the nature of the study was explained to the Principal & co-teachers so as to get co-operation in the procedure of data collection for both the residential and the non residential adolescents. Privacy and confidentiality was maintained during the process of data collection and the data was collected for the stipulated period of 4 weeks.

The investigator selected 200 samples using non probability purposive sampling method, who fulfilled the inclusive criteria. A brief explanation was given on the purpose of the study to the parents of the nonresidential adolescents & signed consent was obtained. The verbal consent from the parents & the signed consent from the principal for the residential adolescents were obtained.

The required materials for the study are as given below:

#### **Non verbal interactive behaviour skills**

Visual aids like pictures of persons like doctors, nurses, teachers & police.

#### **Verbal interpersonal communication skills**

Doll, greeting cards and common objects like pictures of spoon, glass, plates, pencil, pen, books, sharpener, dress, shoes & balls.

#### **Good behaviour management skills**

Art activity materials such as :

d. Palm printing - poster paint, brush, water, glass, plate & soap solution.

e. Sticker collage - cardboard, chart papers, glue, saturn ribbon, glitter glue & stickers of flowers, cartoons, fruits & animals.

f. Hand print wreaths - palm prints, glitter glue, ribbon pieces & kundhan stones.

#### **Table manners**

Hand kerchief and soap solution.

These materials were priority prepared by the investigator and were kept ready for use.

The training was given by the investigator to the research assistant qualified in Diploma vocational training for 2 days on 17<sup>th</sup> & 18<sup>th</sup> of June.

The pre intervention level of social interaction skills were assessed for 2 days by using the modified social skill activity checklist based on National Institute Of Mental Health for 200 mentally challenged adolescents. The pre intervention was conducted individually for each adolescent in a separate room that was classified as red.

The intervention was given for 10 days from 21<sup>st</sup> to 30<sup>th</sup> June between 8am & 4pm. The adolescents were grouped under the IQ basis (mild & moderate) & were assigned to separate rooms, a total of 6 rooms were there, in which 2 rooms were classified as green that contained 16 mentally challenged adolescents with mild IQ, each room contained 8 of them & the other 4 rooms were classified as pink that contained 24 mentally challenged adolescents with moderate IQ in which each room contained 6 of them. The investigator gave the intervention for 20 adolescents (1 green room & 2 pink rooms) and for the other 20 adolescents the intervention was given by the research assistant (1 green room & 2 pink rooms).

The investigator & the research assistant appreciated the adolescents by praising them, giving applause, shaking hands, tapping their shoulders & by giving them chocolates after performance of a given task, if the adolescents misbehaved then as a negative reinforcement the investigator & the research assistant purposefully neglected them & as the adolescents calmed down they make them understand that they were wrong.

The investigator and the research assistant provided the adolescents with continuous reinforcement for 7 days from 1<sup>st</sup> to 7<sup>th</sup> June and after that post intervention level of social interaction skills were assessed for 2 days by using the modified observation checklist based on National Institute Of Mental Health. The post intervention was conducted individually for each adolescent in a separate room that was classified as blue. The post intervention for 200 adolescents was done in two days on 8<sup>th</sup> & 9<sup>th</sup> of July.

**Procedure Schedule**

Date	Training Personnel	Iq	Number Of Adolescents	Total Time Allotted	Time For Each Activity
21/6/2023 To 30/6/2023	Investigator	Moderate Iq	6	2 Hours & 30 Minutes. 8am To 10.30am	Teaching – 25 Minutes Group Activity – 15 Minutes Individual Activity – 90 Minutes Reinforcement – 20 Minutes Time Allotted For – 15 Minutes An Adolescent
			6	2 Hours & 30 Minutes. 10.30am To 1pm	Teaching – 25 Minutes Group Activity – 15 Minutes Individual Activity – 90 Minutes Reinforcement – 20 Minutes Time Allotted For – 15 Minutes An Adolescent.
21/6/2023 To 30/6/2023	Research Assistant	Moderate Iq	6	2 Hours & 30 Minutes. 8am To 10.30am	Teaching – 25 Minutes Group Activity – 15 Minutes Individual Activity – 90 Minutes Reinforcement – 20 Minutes Time Allotted For – 15 Minutes An Adolescent.
			6	2 Hours & 30 Minutes. 10.30am To 1pm	Teaching – 25 Minutes Group Activity – 15 Minutes Individual Activity – 90 Minutes Reinforcement – 20 Minutes Time Allotted For – 15 Minutes An Adolescent.
Date	Training Personnel	Iq	Number Of Adolescents	Total Time Allotted	Time For Each Activity
21/6/2023 To 30/6/2023	Investigator	Mild Iq	8	2 Hours 2pm To 4pm	Teaching – 10 Minutes Group Activity – 15 Minutes Individual Activity – 80 Minutes Reinforcement – 15 Minutes Time Allotted For – 10 Minutes An Adolescent.
			8	2 Hours 2pm To 4pm	Teaching – 10 Minutes Group Activity – 15 Minutes Individual Activity – 80 Minutes Reinforcement – 15 Minutes Time Allotted For – 10 Minutes An Adolescent.

**Plan For Data Analysis**

The data collected will be analyzed by descriptive statistics and inferential statistics.

**Descriptive Statistics**

1. Frequency and percentage distribution to analyze the demographic variables.
2. Mean and standard deviation for analyzing the pre and post intervention level of social interaction skills among mentally challenged adolescents.

**Inferential Statistics**

1. Paired, “t” test will be used to compare the pre and post intervention level of social interaction skills among mentally challenged adolescents.
2. One way ANOVA is used to find out the association between the mean difference of social interaction skills score with selected demographic variables.

**IV. Data Analysis And Interpretation**

This chapter deals with analysis and interpretation of data to study the effectiveness of selected nursing intervention among mentally challenged adolescents at State Institute For Mentally Challenged Children in Bareilly , Bareilly Uttar Pradesh. The data findings have been tabulated and interpreted according to plan for data analysis.

The data collected from 200 samples were grouped and analyzed using descriptive and inferential statistics, the results were presented under the following sections.

**Organization Of Data**

**Section A:** Demographic variables of the mentally challenged adolescents.

1. Demographic variables with regard to an adolescent.

2. Demographic variables with regard to the Socio-economic particulars of the parents.
3. Demographic variables with regard to the family.

**Section B:** Assessment of the pre and post intervention level of social interaction skills among mentally challenged adolescents.

**Section C:** Effectiveness of selected nursing intervention on social interaction skills among mentally challenged adolescents.

**Section D:** Association of the mean difference of social interaction skills scores among mentally challenged adolescents with selected demographic variables.

**Section A: Description Of The Demographic Variables**

**Table 1 (a): Frequency and percentage distribution of demographic variables of the mentally challenged adolescents with respect to age, gender, type of stay, degree of mental retardation, birth order and the number of sibling.**

n=200

S.No.	Demographic Variables	No.	%
<b>1</b>	<b>Age of the adolescent</b>		
	15 years	15	7.50
	16 years	30	15.00
	17 years	60	30.00
	18 years	95	47.50
<b>2</b>	<b>Gender</b>		
	Male	175	87.50
	Female	25	12.50
<b>3</b>	<b>Type of stay</b>		
	Residential	25	12.50
	Non residential	175	87.50
<b>4</b>	<b>Degree of mental retardation</b>		
	Mild retardation	75	37.50
	Moderate retardation	125	62.50
<b>5</b>	<b>Birth order</b>		
	First	80	40.00
	Second	85	42.50
	Third and above	35	17.50
<b>6</b>	<b>Number of sibling</b>		
	One	20	10.00
	Two	140	70.00
	Three and above	40	20.00

Table 1 (a) reveals the frequency and percentage distribution of demographic variables of mentally challenged adolescents with respect to age, gender, type of stay, degree of mental retardation, birth order and the number of sibling.

With regard to age, majority of the mentally challenged adolescents 95(47.50%) were in the age group of 18 years, 175(87.50) were males, 175(87.50%) were non residential, 125(62.50%) were of moderate mental retardation, 85(42.50%) were second born child and 140(70 %) had two siblings.

**Table 1 (b): Frequency and percentage distribution of socio-economic particulars of parents of the mentally challenged adolescents with respect to education and employment of the father and mother.**

n=200

S.No.	Demographic variables	No.	%
<b>1</b>	<b>Father's educational status</b>		
	Non-literate	5	2.50
	Primary	70	35.00
	Elementary	25	12.50
	High school	70	35.00
	Higher secondary	5	2.50
	Diploma	10	5.00
	Graduate and above	15	7.50
	<b>2</b>	<b>Employment of Father</b>	
Unemployed		15	7.50
Unskilled		120	60.00
Technical		10	5.00
Skilled		35	17.50
<b>3</b>	<b>Mother's educational status</b>		
	Professional	20	10.00

	Non-literate	10	5.00
	Primary	65	32.50
	Elementary	35	17.50
	High school	60	30.00
	Higher secondary	15	7.50
	Diploma	0	0.00
	Graduate and above	15	7.50
<b>4</b>	<b>Employment of Mother</b>		
	Homemaker	165	82.50
	Unskilled	15	7.50
	Technical	5	2.50
	Skilled	0	0.00
	Professional	15	7.50

Table 1 (b) depicts the frequency and percentage distribution of socio - demographic particulars of the parents of mentally challenged adolescents with respect to education and employment of the father and education and employment of the mother.

With regard to fathers education majority 70(35%) had primary educational qualification and an educational qualification till high school, 120(60%) of fathers employment were unskilled, 65(32.50%) mothers had an educational qualification till primary and 165(82.50%) were homemakers.

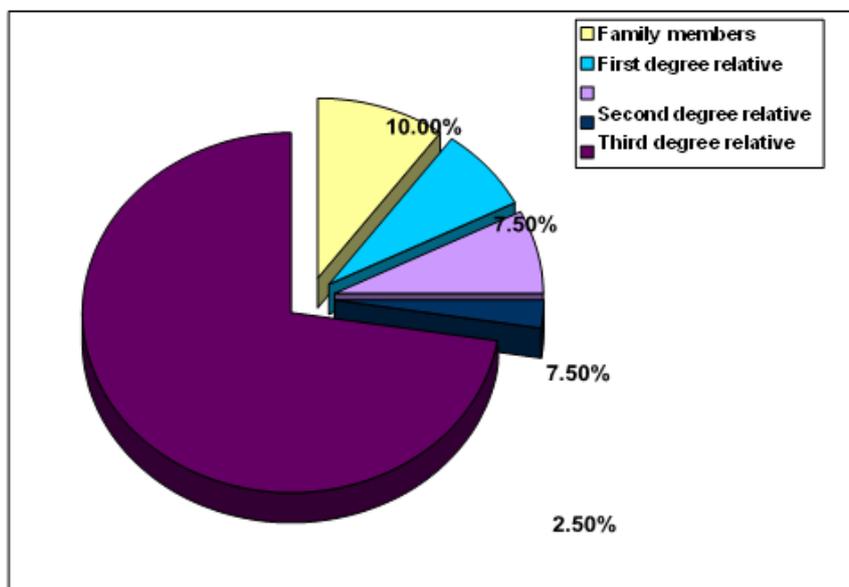
**Table 1(c): Frequency and percentage distribution of demographic variables with regards to the family of mentally challenged adolescents such as type of the family, habitat and family history of mental retardation.**

n=200

S.No.	Demographic variables	No.	%
<b>1</b>	<b>Type of family</b>		
	Nuclear	150	75.00
	Joint	0	0.00
	Extended	0	0.00
	Broken	45	22.50
	Others	5	2.50
<b>2</b>	<b>Habitat</b>		
	Rural	140	70.00
	Urban	60	30.00

Table 1(a) reveals the frequency and percentage distribution of demographic variables with regard to the family of the mentally challenged adolescents such as type of the family and habitat

With regard to type of family, majority of the adolescents 150(75%) belonged to nuclear family and 140(70%) were living in rural area

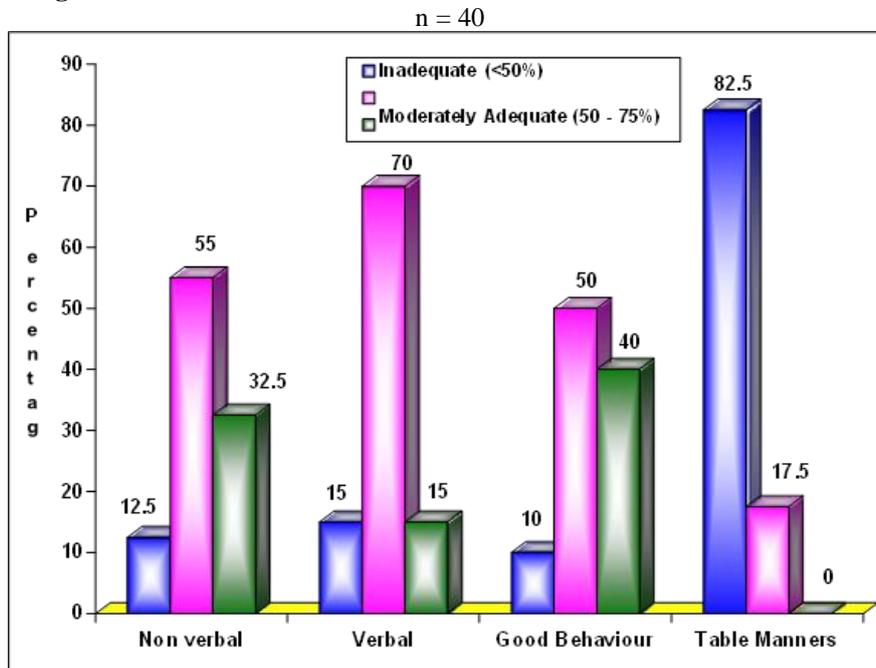


**Fig.2: Percentage distribution of family history of mental retardation among mentally challenged adolescents.**

Fig 2: explains the percentage distribution of family history of mental retardation among mentally challenged adolescents.

With respect to the family history of mental retardation among mentally challenged adolescents 145 (72.50%) had no history of mental retardation.

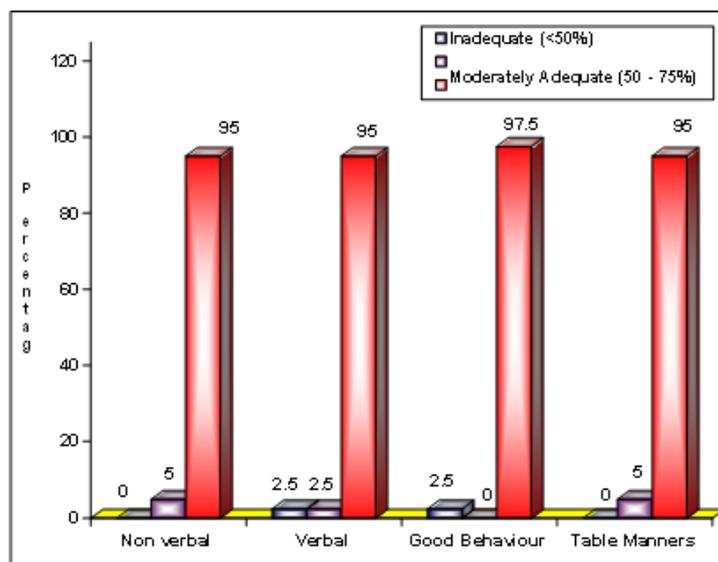
**Section B: Assessment Of The Pre And Post Intervention Level Of Social Interaction Skills Among Mentally Challenged Adolescents.**



**Fig.3 (a): Percentage distribution of the pre intervention level of social interaction skills among mentally challenged adolescents**

Fig.3 (a) explains the percentage distribution of the pre intervention level of social interaction skills among mentally challenged adolescents.

With respect to pre intervention level of social interaction skills among mentally challenged adolescents majority of the adolescents 110 (55%) had moderately adequate non verbal interactive behavior skills, 140(70%) had moderately adequate verbal interpersonal communication skills, 100(50%) exhibited moderately adequate good behavior management skills and 165(82.50%) had inadequate table manners.

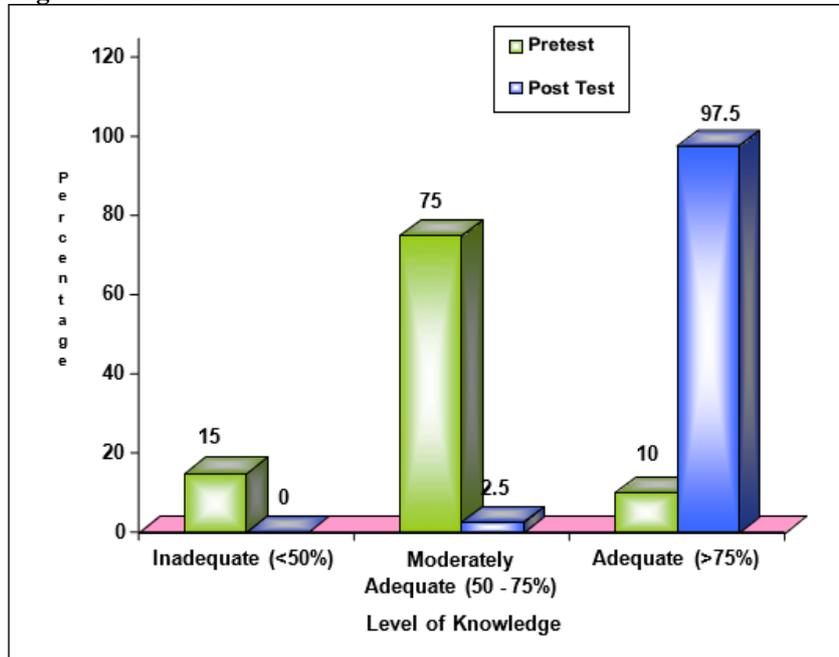


**Fig.3 (b): Percentage distribution of post intervention level of social interaction skills among mentally challenged adolescents.**

Fig.3 (b) explains the percentage distribution of post intervention level of social interaction skills among mentally challenged adolescents.

With respect to post intervention level of social interaction skills among mentally challenged adolescents, majority of the adolescents 190(95%) had adequate non verbal interactive behavior skills, 190(95%) had adequate verbal interpersonal communication skills, 195(97.50%) exhibited adequate good behavior management skills and 190(95%) had adequate table manners.

**Section C: Effectiveness Of Selected Nursing Intervention On Social Interaction Skill Among Mentally Challenged Adolescents.**



**Fig.4: Percentage distribution of the pre and post intervention level of social interaction skills among mentally challenged adolescents.**

Fig.4 explains the percentage distribution of the pre and post intervention level of social interaction skills among mentally challenged adolescents.

With reference to the overall pre intervention level of social interaction skills among mentally challenged adolescents majority of the adolescents 150(75%) belong to moderately adequate social interaction skills and a minority 20 (10%) belong to adequate social interaction skills.

With reference to the overall post intervention level of social interaction skills among mentally challenged adolescents majority of the adolescents 190(95%) belong to adequate social interaction skills and a minority 0(0%) belong to inadequate social interaction skills.

**Table 2: Mean and standard deviation of pre and post intervention level of social interaction skills among mentally challenged adolescents.**

n=200

Social Interaction Skill	Mean	Mean Improvement	S.D	„t“ Value
Pre intervention	36.60	18.8	6.58	t = 22.675*** (S)
Post Intervention	55.40		3.98	

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05, S – Significant

Table 2 shows the mean and standard deviation of pre and post intervention level of social interaction skills among mentally challenged adolescents.

With reference to the pre and post intervention level of social interaction skills revealed that the pre intervention mean was 36.60 with a standard deviation of 6.58 and the post intervention mean was 55.40 with a standard deviation of 3.98. The mean difference score was 18.8 and the calculated „t“ value 22.675 which was greater than the table value which indicated that there was statistically high level of significant difference between the pre and post intervention level of social interaction skills among mentally challenged adolescents at p<0.001 level.

The findings revealed that selected nursing intervention which was utilized had an adequate enhancement in the social interaction skills of mentally challenged adolescents.

**Section D: Association Of The Mean Difference Of Social Interaction Skills Scores Among Mentally Challenged Adolescents With Selected Demographic Variables.**

**Table 3: Association of the mean difference of social interaction skills scores among mentally challenged adolescents with respect to the habitat of the family of mentally challenged adolescents.**

n=200

S.No.	Demographic Variables	Pretest		Post Test		Mean Difference		ANOVA/ „t“ Value
		Mean	S.D	Mean	S.D	Mean	S.D	
2	<b>Habitat</b>							t = 2.092 S*
	Rural	35.07	6.08	55.00	4.50	19.93	4.86	
	Urban	40.17	6.55	56.33	2.23	16.17	5.35	

\*\*\*p<0.001, \*\*p<0.01, \*p<0.05, S – Significant, N.S – Not Significant

Table 3 illustrates association of the mean difference of social interaction skills scores among mentally challenged adolescents with respect to the habitat of the family of mentally challenged adolescents.

The one way ANOVA F test and unpaired „t“ test were used for the association. The unpaired „t“ test revealed that there was a low significant association with the habitat of the mentally challenged adolescents at p<0.05 level.

The one way ANOVA F test and unpaired „t“ test indicated that there was no significant association with regards to other demographic variables such as age, gender, type of stay, degree of mental retardation, birth order, number of sibling, education and employment of the father and mother, type of the family and family history of mental retardation.

**V. Discussion**

This chapter discusses in detail the finding of the study derived from the statistical analysis and its pertinence to the objectives set for the study and related literature of the study. The purpose of the study was to assess the effectiveness of selected nursing intervention on social interaction skills among mentally challenged adolescence. The findings of the study are discussed based on the objectives stated below.

**The first objective of the study was to assess the pre and the post intervention level of social interaction skills among mentally challenged adolescence.**

With respect to pre intervention level of social interaction skills majority 110(55%) had moderately adequate non verbal interactive behavior skills, 140(70%) had moderately adequate verbal interpersonal communication skills, 100(50%) exhibited moderately adequate good behavior management skills and 165(82.50%) had inadequate table manners.

This was consistent with the true experimental study conducted by **Nestler J & Goldbeck L (2011)<sup>76</sup>** among 77 adolescents with borderline intellectual functioning, emotional and behavioral problems of which 40 are from the experimental group and 37 from the control group .The intervention included a Social Competence Training for Adolescents with Borderline Intelligence and a 6- month follow-up comprised of self-reports, caregiver reports and behavioral observations. The study findings revealed that adolescents in the intervention group showed temporally stable improvement in their social competence, especially in social problem solving and attainment of individual behavioral goals in everyday life.

**The second objective of the study was to assess the effectiveness of selected nursing intervention on social interaction skills among mentally challenged adolescence.**

Considering the level of social interaction skills in the post intervention among mentally challenged adolescence, majority 190(95%) had adequate non verbal interactive behavior skills, 190(95%) had adequate verbal interpersonal communication skills, 195(97.50%) exhibited adequate good behavior management skills and 190(95%) had adequate table manners.

The calculated „t“ value was 22.675 was higher than the table value which indicated that there was high statistical significant difference at p<0.001. Therefore the hypothesis NH<sub>1</sub> stated earlier “there is no significant difference between the pre interventional and post intervention level of social interaction skills mentally challenged adolescence” was **rejected**.

The findings was supported by a comparative study done by **Ison M.S (2003)** to assess the effects of training in social skills an alternative technique for handling disruptive child behavior among 164 boys exhibiting disruptive behavior & 151 boys with no disruptive behavior using group play technique in Mendoza city of Argentina. The study results revealed that the group trained in social skills improved in social

interaction by reducing disruptive behavior where as groups without social skills training showed no behavioral change.

The findings of the study were concurrent with the findings of the pre- experimental study done by **Toomey J F and Callaghan R J (2003)**<sup>84</sup> to assess the adult status among 382 mild and moderate challenged past pupil from special school in Ireland. The intervention included special training program that included social skill training in the form of play, cultural events and functional communication training. The study results revealed that a majority of mild and moderate challenged individual made satisfactory adjustment in adult life, the demographic variables like IQ, sex, socio economic class accounted for significant differences in some aspects of social independence.

**The third objective of the study was to associate the mean difference of social interaction skills score among mentally challenged adolescence with selected demographic variables.**

The association of the mean difference level of social interaction skills score among mentally challenged adolescence with selected demographic variable using one way ANOVA, F test and paired „t“ test which indicated that there was a low statistical significant association of mean improvement social interaction skills with the habitat of the mentally challenged adolescence at  $p < 0.05$  level. Hence the hypothesis  $NH_1$  stated earlier “there is no significant association between the mean difference score level of social interaction skills among mentally challenged adolescence with the selected demographic variable” was **rejected** and was **accepted** for other demographic variables like age, gender, type of stay, degree of mental retardation, birth order, number of sibling, education and employment of both father and mother, type of family and family history of mental retardation.

The findings was supported by a descriptive study conducted by **National Institute for the Mentally Handicapped**, and three non governmental organisations namely, **Balavikas Institute, Digdarshika Institute of Rehabilitation and Research, Bhopal**, and **Navjyoti Centre, New Delhi (1998)**<sup>106</sup> to examine the facilitators and inhibitors to 'coping' by parents who have adolescence with mental retardation among 218 parents who were studied in three centers (Delhi, Thiruvananthapuram and Bhopal) by using interviews that had open ended questions

. The study results revealed that more parents from urban areas reported "Working out problems on one's own", "Mutual support - spouse", "Physical support - family/others" and "Institutional support" as facilitators, than parents from non-urban areas. "Professional support" was reported to have significantly helped parents from non-urban families to cope better. The pressures of living in urban areas may lead to greater need for external support.

## **VI. Summary, Conclusion, Implications, Recommendations And Limitations**

This chapter presents the summary, conclusion, implications, recommendations and limitations of the study.

### **Summary**

The mentally challenged adolescents need more love and affection than the normal adolescents does or they tend to get frustrated. They are not able to express their needs and are having impaired social functioning. Hence the nurses should come forward to help the adolescents to be a part of the society and to make them to live in touch with the outer world.

The purpose of the study was to assess the effectiveness of selected nursing intervention on social interaction skills among mentally challenged adolescents.

### **The objectives of the study were**

- 1.To assess the pre and post intervention level of social interaction skills among mentally challenged adolescents.
- 2.To assess the effectiveness of selected nursing intervention on social interaction skills among mentally challenged adolescents.
- 3.To associate the mean difference of social interaction skills score among mentally challenged adolescents with selected demographic variables.

### **The study was based on the assumptions that**

1. Mentally challenged adolescents may have some level of social interaction.
2. The selected nursing intervention may enhance the level of social interaction among mentally challenged adolescents.

### **The null hypotheses formulated were**

**$NH_1$ :** There is no significant difference in the pre and post intervention level of social interaction among

mentally challenged adolescents at  $p < 0.05$ .

**NH<sub>2</sub>:** There is no significant association of mean difference level of social interaction skills among mentally challenged adolescents with the selected demographic variable at the level of  $p < 0.05$ .

The review of literature, professional experience and expert’s guidance from the field of child health nursing and child psychology provided a strong foundation for the study. It also strengthened the ideas for conceptual framework, aided to design the methodology and develop the tool for the data collection.

In view of explaining and relating various aspects of the study, the investigator had adopted Kathryn E Barnard’s caregiver- child interaction model.

The researcher approach utilized in this study was quantitative approach and the research design in this study was pre experimental one group pre test – post test design. The study was conducted at State Institute For Mentally challenged Children in Bareilly , Bareilly Uttar Pradesh. The sample size was 200 mentally challenged adolescents with mild and moderate IQ belonging to the age group of 15 to 18 years, who were selected by non-probability purposive sampling technique.

The tool for data collection comprised of 2 sections, demographic data of the mentally challenged adolescents and modified social skill activity checklist given by National Institute of Mental Health.

The medical and nursing experts validated the tool. The pilot study was conducted at Institution for Mentally Challenged Children, Bareilly. The reliability of the tool was confirmed using Karl Pearson Correlation Coefficient method and the „r“ value was 0.87 which showed high positive correlation. The „r“ value indicated that the tool was reliable for conducting the main study. The practicability and the reliability enabled the investigator to conduct the main study. The ethical aspect of research was maintained throughout the study by obtaining ethical committee clearance from the International Centre for Collaborative Research, a signed consent from the parents of the non-residential adolescents and verbal consent from the parents, together with the signed consent from the principal for the residential adolescents were obtained.

The main study was conducted for a period of 20 weeks. Data collection was done before and after implementing the selected nursing intervention for 200 mentally challenged adolescents.

### **The major findings of the study revealed that**

The data was analyzed using descriptive and inferential statistics. There was significant difference between the pre and the post intervention level of social interaction skills among mentally challenged adolescents. The calculated „t“ value was (22.675) was higher than the table value which indicated that there was high statistical significant difference at  $p < 0.001$ . Hence the null hypothesis NH<sub>1</sub> “there is no significant difference between the pre and post intervention level of social interaction skills among mentally challenged adolescents at  $p < 0.05$ ” stated earlier was **rejected**.

The association of the mean difference level of social interaction skills score among mentally challenged adolescents with selected demographic variable using one way ANOVA, F test and unpaired „t“ test which indicated that there was a low statistical significant association of mean improvement social interaction skills with the habitat of the mentally challenged adolescents at  $p < 0.05$  level. Hence the hypothesis NH<sub>2</sub> stated earlier “there is no significant association between the mean difference score level of social interaction skills among mentally challenged adolescents with the selected demographic variable at  $p < 0.05$ ” was **rejected**.

Hence, NH<sub>2</sub> stated earlier was **rejected** for the same and was **accepted** for the other demographic variables such as age, gender, type of stay, degree of mental retardation, birth order, number of siblings, educational status and employment of the father and mother, type of family and family history of mental retardation.

### **Conclusion**

The present study assessed the effectiveness of selected nursing intervention among mentally challenged adolescents on social interaction skills. The findings of the data analysis depicted that selected nursing intervention was more effective on social interaction skills among mentally challenged adolescents. Hence, selected nursing intervention can be utilized to enhance the social interaction skills among mentally challenged adolescents.

### **Implications**

#### **Nursing Practice**

- As the nurses face it as a challenging task to communicate with the mentally challenged adolescents, hence the social skill training package for nurses helps them to establish a therapeutic relationship by using effective communication and also helps to render effective care for mentally challenged adolescents.
- In a pediatric setting of the hospital and in the institutes for mentally challenged adolescents extracurricular

activities like art activities to be included.

- The nurse should demonstrate, provide close supervision and must train the mentally challenged adolescents in basic skills like table manners, thereby assisting them to meet the nutritional needs.

### **Nursing Education**

- The Nurse educators should provide the nurses in the clinical area with in- service education emphasizing the social skill training for mentally challenged adolescents that would help the nurses to determine the adolescent’s acceptable and unacceptable behaviours.
- The educational institution must provide opportunities for nursing students to undergo social skill training for mentally challenged adolescents that may help them in future when they encounter and take care of mentally challenged adolescents in diverse settings.
- The present curriculum needs to be focused on various aspects like well being of mentally challenged adolescents and communicating with mentally challenged adolescents.
- The nursing students can be exposed to handle mentally challenged adolescents and their caregivers.
- Nursing educationist in the community play a vital role in educating the mentally challenged adolescents with appropriate behavior and communication pattern, so that they don’t behave oddly, frighten or offend other adolescents making them a social outcast.

### **Nurse Administration**

- In a pediatric setting of the hospital and in the institutes for mentally challenged adolescents extracurricular art activities like palm printing, sticker collage and hand print wreaths to be included.
- The nursing service administrator should also encourage and influence the staff nurses to practice art activities for mentally challenged adolescents in promoting optimum level of socialization.
- The training programmes incorporating art activities for mentally challenged adolescents involving their parents should be implemented.
- Nursing administrator should plan and implement collaborative training involving health team members and parents.

### **Nursing Research**

- The nurse investigators should be motivated to do research studies in various aspects of mentally challenged adolescents well being like effectiveness of social skill training in communication and behaviour.
- The investigator of the present study encourages the youngsters to take up various studies that may help to identify the needs of mentally challenged adolescents and use of training programmes to meet there needs.
- The nurse investigators should disseminate their research findings through various means.

### **Recommendations**

1. The investigator recommends to implement social skill training among mentally challenged adolescents and to appoint a separate staff to train the adolescents in State Institute For Mentally Challenged Children.
2. The investigator recommends to implement art activities as one among the vocational training and to appoint a separate staff to train the adolescents in State Institute For Mentally Challenged Children.
3. The investigator also recommends implementing table manners (setting the table, arrangement of the dishes, serving the food and cleaning of table and utensils) for the mentally challenged adolescents in State Institute For Mentally Challenged Children.
4. The investigator recommends the students of Omayal Achi College of nursing and its affiliated hospitals to implement the social skill training for the mentally challenged adolescents in practice area.

Based on the study findings the recommendations are,

1. The same study can be done as a true experimental study for mentally challenged adolescents.
2. The study can be replicated in various settings with larger samples to facilitate generalization of the result.
3. The study can be extended to a prolonged period for more effectiveness.
4. A pre experimental study to assess the effectiveness of art activities on social interaction skills among mentally challenged adolescents.
5. A pre experimental study to assess the effectiveness of doll activities on menstrual hygiene among mentally challenged adolescents.
6. A true experimental study to assess the effectiveness of play therapy in promoting socialization among mentally challenged adolescents.
7. A qualitative study to assess the challenges of nurses communicating with and gaining valued consent from mentally challenged people within the accident and emergency care department.

8. A true experimental study to assess the effectiveness of early language interventions for children with intellectual disabilities.
9. A pre experimental study to assess the effects of family style services on meal time language among mentally challenged adolescents.

### **Limitations**

1. The investigator faced ample difficulty in explaining and getting the consent from the parents of mentally challenged adolescents.
2. The investigator faced ample difficulty initially to gain cooperation with the mentally challenged adolescents.

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