

Effect of psychosocial intervention on quality of life and disability grading of mentally disabled adolescents

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Abstract

Mental disability especially at early stage is amenable to intervention measures. Objective of the study was to assess the effect of psychosocial intervention on Quality of life and Disability grading of mentally disabled adolescents. The study was conducted at 2 special schools namely St. Agnes special school and Sannidhya special school in Mangalore among 103 students between the age group of 12 to 18 years. The psychosocial intervention was conducted in 8 sessions over a period of 4 months. A pretest and post test was conducted in the 1st session and the 8th session (after the intervention) using Indian Disability Evaluation Assessment Scale (IDEAS) and WHO QOL BREF. Data were analyzed using Percentages, Friedman test and Paired t test. The study has shown significant decrease in the disability level of self care, interpersonal activity, communication and understanding, work and increase in the quality of life after the intervention compared to baseline. The mean score of all domains- physical, psychological, social and environmental have shown a significant difference ($P < 0.001$). But the mean difference was more in the psychological and social domains when compared to the physical and environmental domains. This could be due to the emphasis of the intervention being more on the skills related to psychological and social aspects of everyday life. Psychosocial intervention brings about a decrease in the disability level and increase in the quality of life of mentally disabled adolescents.

Key words: Quality of life, Mental disability grading, IDEAS, QOL BREF

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Introduction

Mental disability is a major public health problem in the society. The report of the National Sample Survey Organization (NSSO) contains, for the first time information on mentally disabled persons i.e. mental retardation and mental illness [1]. Mental disorders account for about a quarter of the world's disability [2]. It is important to identify the grades of mental disability because they are amenable to preventive and rehabilitative measures at early stage and progression to severe and profound disability can be slowed [3]. At this juncture, there is a need to identify mental retardation as one of the causes of mental disability among adolescents and to undertake intervention.

The concept of quality of life is more important in individuals with disability as they suffer constantly from psychosocial discrimination [4]. The main goal of health care is to ensure that the mentally disabled person possesses the physical, emotional and intellectual skills needed to live and work in the society. When professionals think of programs for the mentally disabled, emphasis is mainly on vocational and academic guidance but very little on psychosocial guidance. The psychosocial intervention studies will be a useful tool in planning and developing community based rehabilitation programmes for the mentally disabled adolescents. With this background, the study was conducted with the objectives of grading the disability of mentally disabled adolescents, to assess quality of life among them using WHO QOL-BREF and to evaluate the effect of intervention on the disability grades and quality of life.

Material and Methods

This was an intervention study conducted during March 2009 to July 2009 with a pre-test and post-test assessment conducted at 2 special schools namely St. Agnes special school and Sanidhya special school in Mangalore. Students at the special schools between ages of 12-18 yrs were chosen for the study. Mental disability was assessed by using Indian Disability Evaluation and Assessment Scale (IDEAS). Mentally disabled students due to mental retardation were included and those with other mental illness or co-morbidity were excluded in our study. To-tally 103 mentally disabled adolescents were selected from two schools. The investigators first built a rapport with the mentally disabled adolescents after which a pre –test was done. Study protocol was approved by the institutional ethical committee.

Procedure

Students with mental retardation are capable of learning a great deal; however, they often need to be taught systematically and creatively in order to master certain skills. Life skills need to be taught and practiced multiple times to help them independently participate in daily routines and activities. With the right environment and training program, students with mental retardation do show improvements in current life skills and begin to make progress with new skills. With this in mind the investigators carried on the study in different phases which is spelt out in detail.

After the initial rapport building and briefing to the students of the schools separately, a pre-assessment of disability grade using IDEAS and Quality of life using WHO QOL-BREF was done on these students. Written consent was taken from the parents/guardians. The intervention programme was then conducted in eight sessions. These sessions were based on WHO manual of Life Skills [5,6]. The psychosocial intervention was conducted by a trained Life Skill Educator along with the investigator.

Session 1

Pre test was conducted to evaluate the current skill level of the students through observation and testing. Here the ground rules were also spelt out in a very simple manner to the students.

Session 2

Building Self Esteem skill-Introduction to self was conducted where they had to tell their names and something unique about themselves to the group. An activity known as I LOVE MYSELF was conducted to make them aware of their strengths. Mime was also used in this session. Another activity known as OTHERS LOVE ME was also conducted. All these activities were aimed at helping the adolescent to understand their own strengths and have a better self image. The purpose of this session was to build up their self esteem and in the long run bring out their potentials.

Session 3

Communication skill – The objective was to enhance their communication so that they will be able to verbalize feelings. The meaning of mixed communication was explained and made to understand through different activities such as 'say something and do something', understanding actions through mime and role play. The adolescents enjoyed this session as it involved a lot of facial and body expressions which was easy for them. They were told to practice and observe this at home and report in the next session.

Session 4

Interpersonal Relations skill – Importance of interpersonal skills was explained and how it was important for the development. Activities such as 'My best friend' and 'qualities of a friend' were appreciated. They were asked to think and specify qualities what others like in them. This helped them to understand the qualities they have to develop in themselves and they also pointed out qualities that were not appreciated and then through a role-play they were made to understand how to eliminate these qualities from their every day behavior. This was also given as homework. This skill helps them to have better interpersonal relations and in turn better social support.

Session 5

Coping with Emotions Skill- This session made use of pictures which showed different emotions which they had to explain and associate with the situations which bring forth these emotions in them. They were also helped to understand ways of coping with emotions and be able to recognize these negative emotions. Stories were used in this session to understand the effect of maladaptive ways of expressing emotions.

Session 6

Book of me, self understanding skill- This was a group activity where they were also told to make use of skill that they learnt in the previous session. They were divided into small groups of 4 or 5 students and each students was given a book, sketch pens and some magazines of which they had to choose pictures which relates to their life and stick it and they had to seek association between the picture they stick and their own life. This activity was very much appreciated by them and they treasured the book and this was filled by them even at home and thus they would bring it every time and discuss with the inves-tigators.

Session 7

Decision making skill – Importance of right decisions was spelt out here. The importance of right behavior was clearly told to them through a story of a hunter, tiger and monkey with use of a poster which had all these pictures. Another activity of passing a parcel with many things which could not be seen was conducted and they had to guess the articles in that parcel. This explains how we should not judge by appearance. One should be careful of people and situation they come across.

Session 8

The last session was aimed at strengthening their under-standing of earlier sessions. The skills were shared with the teachers and the caretakers so that they can also work on these lines. Life skills here were made a part of their daily routine. This reduces the anxiety in learning new skills and in turn builds confidence in them. In this ses-sion the Post test was conducted and their learning's were again clarified and they were encouraged to continue us-ing these skills in their everyday life.

Quality Of Life WHOQOL-BREF is a structured self-report interview schedule. It was developed by WHO di-vision of mental health in 1991. It consists of 26 items. Its purpose is to assess quality of life of a person. It assesses the subject under four domains, which are physical, psy-chological, social and environmental [7]. Indian Disabil-ity Evaluation and Assessment Scale (IDEAS) is a scale for measuring and quantifying disability in mental disor-ders, developed by the Rehabilitation Committee of In-dian Psychiatric Society [8,9,10]. IDEAS has four items: Self Care, Interpersonal Activities (Social Relationships), Communication and Understanding, and work. Statistical analysis was done using students paired t test and Fried-man test. $P < 0.05$ was considered to be significant. Statis-tical package SPSS version 16.0 was used for the analysis. Results Around 2/3 (63%) of the respondents were between 12-15 years of age. The mean age was 14.8058 years [Table 1]. Majority of the respondents were males (68%). Self care skill was guided by social norms and conventions. The broad areas covered under this aspect are maintenance of personal hygiene, looking after themselves, their cloths, looking after their personal belongings and also how they are able to maintain their eating habits. The study clearly showed positive changes in the rate of disability of self care after the intervention. About 29 adolescents who had a severe disability level in self care before intervention have shown reduction in disability. Similarly significant positive change is noticed in area of interpersonal activity after psychosocial intervention. Few of the adolescents who are representing different levels of communication and understanding have remained unchanged. 9 (34.6%) have shifted from mild disability in the area of communi-cation to no disability, where 19 (76%) of the adolescents have arrived at mild disability from the moderate level. Similarly 35(76%) of them have shifted from severe to moderate disability. It can also be seen that all the re-spondents from profound disability level (5) have moved to moderate (2) and severe (3) level. Disability level of work again showed that 10% (4) of the adolescents moved from moderate to mild, 34% (17) from severe to moderate and 50% (2) from profound to severe, which all shows that this intervention programme is effective [Ta-ble 2]. Mean disability score before and after the psycho-social intervention showed a significant reduction in the mean score ($P < 0.001$) [Table 3].

Table 1. Age of the Respondents

Age (years)	Frequency (%)
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12	15 (14.6%)
13	14 (13.6%)
14	15(14.6%)
15	21(20.4%)
16	18(17.4%)
17	10(9.7%)
18	10(9.7%)
	103

Mean Age \pm SD =14.8058 \pm 1.8527

Table 2. Before and After Score in mental disability among subjects

Mental disability parameters	Number of subjects with levels of disability					F value, P
	without Disability	Mild	Moderate	Severe	Profound	
Self Care						
Before	0	22	51	29	1	37.1, <0.001
After	0	42	50	10	1	
Interpersonal activities						
Before	1	22	32	43	5	71.0, <0.001
After	9	43	39	11	1	
Communication and Understanding						
Before	1	26	25	46	5	74.0, <0.001
After	10	42	43	8	0	
Work						
Before	0	8	41	50	4	25.0, <0.01
After	0	13	55	34	1	

Quality of life mean scores in the area of Physical, Psy-chological, Social and Environmental aspects have shown significant difference between the pre intervention and post intervention. It clearly explains that psychosocial inter-vention which included aspects such as self awareness, communication interpersonal skills, decision making has improved among the mentally disabled adolescents. How-ever these differences seem to be more in the area of psy-chological and social domains (Mean difference score -13.0874 and -11.0583) as compared to physical and envi-ronmental domain (Mean difference -5.8115 and -3.2039) (Table 4).

Table 3. Total Disability Score, Paired Sample Statistics

Mean \pm SD	Standard Error
Before Intervention	13.0971 \pm 2.9189 0.2876
After Intervention	10.8835 \pm 2.4785 0.2442

Table 4. Before and after score in Quality Of Life

Domains	Before Mean	After Mean \pm	Changes Mean \pm	Paired t value,
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	±SD	SD	SD	P
Physical	44.4078 ± 6.6604	50.2233 ± 6.8641	-5.8155 ± 5.8974	-10.008, <0.001
Psychological	37.4563 ± 9.2490	50.5437 ± 8.3182	-13.0874 ± 7.3192	-8.147, <0.001
Social	27.2621 ± 9.1651	38.3204 ± 10.4255	-11.0583 ± 7.5171	-4.930, <0.001
Environmental	46.3981 ± 10.5573	49.6019 ± 11.0563	-3.2039 ± 5.7554	-5.650, <0.001

Discussion

Mental disability is widely prevalent all over India, but the prevalence varies according to the methodology and design adopted for the study [1, 9]. Many of them need help to communicate and interact with their family and society. This has led to the need for intervention of the mentally disabled adolescents which is more comprehensive in nature encompassing a variety of skills enabling them to function optimally and live satisfactorily in the family and community. The areas of psychosocial intervention include self awareness, effective communication, positive interpersonal relationship and decision-making skill. The goal of the psychosocial intervention is to ensure that the disabled adolescents are able to master the physical, psychosocial and social skills to live and work in a satisfactory manner. The past few decades have evidenced growing academic and vocational intervention for the management of mental disability. But there is a need for psychosocial intervention to improve the quality of life of the mentally disabled individuals. In this regard, the study highlights some of the findings which are discussed in comparison with other studies.

In this study the majority of the respondents are between the age group of 12-15 years of age, highlighting the fact that most of the adolescents are in their crucial age of development, which makes it very important to have such developmental programmes at this age. After the psycho-social intervention a significant difference was seen in the area of self care similar to another study [11]. Similarly with respect to interpersonal activity and work, significant improvement was seen compared to other studies done among schizophrenia subjects [12]. The overall Paired Mean score of the disability level shows a positive change in the disability level after the psychosocial intervention. Other studies also showed similar findings [13,14]. The change in Quality of life mean difference was more in the psychological and social domains as compared to physical and environmental domains. This shows that the psychological and social skills can be enhanced through appropriate methodology used here which was participatory one and easily understood by the subjects whose intellectual level was low. Skills imparted through these interventions are more comprehensive in nature as compared to just imparting academic and vocational skills. This design helps the researchers to build a positive rapport to motivate disabled adolescents, which in turn brings about a desire to learn new skills. This was a positive aspect of this study.

The study was a short term one which may not give a long-term change but if the same intervention is done at regular intervals for a long period and with the involvement of parents and teachers, it will definitely show a higher rate of difference, which will be more long standing. There is dearth of intervention studies in the area of mentally disabled children. As the level of intelligence of the respondents is low, they may not benefit from the usual methods of classroom where they just listen to a teacher. Due to this prior knowledge the investigators used the participatory method where the skill was explained verbally and then demonstrated using audiovisual aids such as charts, posters, role-play which in turn helped the respondents to imbibe these skills into their every day activity. The investigators feel that psychosocial interventions like life skills should be made a part of the curriculum of the special schools for the mentally disabled.

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References

1. National Sample Survey Organization. A report on disabled persons. New Delhi: Department of statistics, Government of India: 2003.
2. World Health Organization. World Health Report, Mental Health: New understanding. New Hope, Geneva 2001.
3. Ganesh Kumar S, Das A. Are the disability data in India appropriate? The National Medical J of India 2009; 22 (5): 278.
4. Solanki RK, Singh P, Midha A, Chugh K. Schizophrenia: Impact on quality of life. Indian J Psychiatry 2008; 50: 181-186.
5. World Health Organization. Mental health programmes in Schools, Geneva 1994.
6. World Health Organization. Life skills Education for children and adolescents in Schools, Division of mental health, Geneva 1994.
7. WHO Quality of Life-BREF (WHO QOL-BREF). World Health Organization, WHOQoL Study Protocol. 1993, MNH7PSF/93.9.
8. Guidelines for evaluation and assessment of mental illness and procedure for certification. Govt Of India, Ministry Of Social Justice And Empowerment, February 27, 2002.
9. Ganesh Kumar S, Das A, Bhandary PV, Soans SJ, Kumar HNH, Kotian MS. Prevalence and pattern of mental disability using Indian disability evaluation assessment scale in a rural community of Karnataka. Indian J Psychiatry 2008; 50: 21-23
10. Mohan I, Tandon R, Kalra H, Trivedi JK. Disability assessment in mental illness using Indian disability evaluation assessment scale (IDEAS). Indian J Med Res 2005;121: 759-763
11. Padmanabhaiah S, Kumari L, Harnath PSR. Adolescent life skills development, UNFPA project in Aziznagar and Karnakamaminde villages in Andhra Pradesh Indian J of Population Education 2003; 23: 11-17
12. Thara R, Srinivasan L, Latha S. Management of social disabilities in Schizophrenia. Indian J Psychiatry 1998; 40: 331-337
13. Caplan M, Weissberg R, Gober J, Sivo P. Social competence promotion with inner city and suburban young adolescents; Effects on social adjustments and alcohol use J of Consulting and Clinical Psychology 1992;60: 56-63.
14. Helfrich CA, Fogg LF. Outcomes of a Life Skills Intervention for Homeless Adults with Mental Illness. J of Primary Prevention 2007; 28: 3-4.

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