Effectiveness of anger Management training program in Managing Aggressive behavior of Adults with Mental retardation

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Abstract

This study aims to determine the efficiency of anger management training program in managing aggressive behavior of adults with mental retardation. The study, in total, included 10 adults, 5 of which were diagnosed with mild mental retardation (N=5) and the other 5 were diagnosed with moderate mental retardation (N=5), all the 10 participants were exhibiting aggressive behaviors. The age of the participants ranged from 18-40 years and it was divided into two groups (18 years 1 month-30 years, N=5; 30 years 1 month to 40 years, N=5). The pattern of “before and after without control group design” was followed in the present study. Binet-Kamat test of Intelligence was used to assess the intelligence level, VSMS was used to assess the adaptive behaviours of the participants and Behavioral Assessment scale for Adults with Mental Retardation (BASAL-MR) Part –B was used to assess Aggressive behaviours. Intervention of anger management training program, on individual basis, was given in 12 sessions. Post-test scores were obtained by using BASAL-MR PART-B after giving the intervention. Results suggested that anger management training program is effective in reducing aggressive behaviours in adults with mental retardation. Results are also discussed with respect to participant’s age and level of retardation.

Keywords: Anger management training program, mental retardation and aggressive behaviour.

Introduction

Mental retardation is the most distressing and serious handicap in itself, however, the problem is compounded significantly when complicated by emotional and behavioral problems. The problem is even more doubled when the problem behaviour is severe and destructive like aggression and causes harm to other people. The World Health Organization of the United Nations Organization (UNO) in the International Statistical Classification of Disease and Related Health Problems (ICD-10) defines Mental Retardation as, “a condition of arrested or incomplete development of the mind, which is especially characterized by impairment of skills manifested during the developmental period, skills which contribute to the overall level of intelligence, i.e. cognitive, language, motor, and social abilities”¹.

Classification of mental retardation as per ICD-10: Mild Mental Retardation: People with mild mental retardation have approximately an I.Q range of 50 - 69 (they can have a mental age of 9-12 years during their adulthood). In their classes in schools they will be considered as backward, slow learners and underachievers as compared to their counterparts. As adults, though not all, many adults will work independently and maintain great social relationship in the society.

Moderate Mental Retardation: Such people have an approximate I.Q range of 35 - 49 (as adults their maximum mental age ranges from 6-9 years). During their childhood, they are proven to have marked developmental delays but they could manage independence in communication, academics and self-care. Mild degree of support will be required by this category as adults in order to function in the community.

Severe Mental Retardation: They need support throughout their lifespan and have an approximate I.Q range of 20 – 34 (during their adulthood period mental age ranges from 3 to fewer than 6 years).

Profound Mental Retardation: Their I.Q is below 20 (they achieve a maximum mental age of 3 years as adults, if somehow they lived upo that period of life, otherwise their lifespan is very short). Their communication, mobility and self-continenence is severely affected.

Individuals with mental retardation have a notable deficiency in adaptive behaviour². American Psychological Association in their publication manual DSM-IV-TR defines ‘Adaptive Behaviour’ as, effectiveness in meeting the standards expected for his or her age by his or her cultural group. There are ten main areas of adaptive behaviour, which includes: Social skills, Self-care and home living, Self-direction, Communication, Functional academic skills, Work, Leisure, Health issues, Use of community resources and Safety³. In India, the survey of the National Sample Survey Organization (NSSO) in the 58th Round has shown that 94 per 1,000,00 are affected by this condition and it is found more in males as compared to females⁴. People with mental retardation manifest many
emotional and behavioural problems like self-injurious
behaviours, hyperactive behaviours, aggression etc. In the
present study the focus is on aggressive/anger behaviours only.
Aggressive behavior is defined as a persistent pattern of
behavior that causes or threatens harm to other people, violates
the basic rights of others, violates age appropriate societal
norms and rules, and causes impairments in social and academic
functioning. It is a general consensus that 75% of the
population with mental retardation show aggressive behaviour
in one form or the other. Aggression can be verbal, physical, or
sexual which includes threatening behavior or verbal hostility
that may provoke confrontations; resistiveness, striking out,
biting, property destruction; elopement and direct physical
attacks on others respectively.

Although different methods have been attempted in the
treatment of aggressive behaviours- the use of tranquilising
drugs, various forms of supportive psychotherapy, the only
procedures which have produced consistently favourable
outcomes are behavioural management of aggression.
Behavioural management of aggression involves a series of
stages like risk assessment, control of precipitants, early
intervention, acute management and after-event evaluation.
Both rehabilitation staff and family have to be very much
trained in order to handle the aggressive behavior of the
mentally retarded persons with minimum harm to persons and
property. Appropriate training strategies can be recommended
by the behavioural interventionists to assist a mentally retarded
person with intellectual disability to gain better coping skills for
dealing with his aggressive behaviour. Sometimes physical
restraints are also needed to control an aggressive behavior. Use
of physical restraints are only recommended, if the behavioural
and pharmacological interventions have already exhausted.

Now-a-days emphasis is more on behaviour intervention which
include different anger management techniques. Anger
management lays down the strategies that reduces the emotional
feelings and anger is expressed with least possible destruction to
self, to others, as well as to the surroundings. It incorporates
psychological therapies and exercises that minimize the
degrees and effects of anger. This involves understanding one’s
anger patterns and dealing with them effectively.

There are various approaches to angry feelings. The three main
approaches are expressing, suppressing, and calming. The
assertive expression of anger (not aggressive expression) is
considered to be the healthiest way for expressing anger.
Unexpressed anger has devastating effects on the personal
health of the individual. It can lead to pathological expressions
of anger, such as passive-aggressive behavior. Finally, calming
down inside means not just controlling outward behavior, but
also controlling internal responses, taking steps to lower heart
rate, calm oneself down, and let the feelings subside.

According to Norman Schultz anger response is determined by
four factors: i. An external event, ii. A cognitive appraisal of
that event, iii. A physiological response to the event (muscle
tension, increased heart rate), iv. A behavioral response
(shouting, loss of temper, aggression) to these internal
processes.

Non-pharmacological interventions are effective in managing
aggressive behavior. Verbal and physical aggression reduced
with mindfulness training which is a technique in cognitive-
behavioural intervention. Hassiotis and Hall conducted a
research study to determine the efficacy of behavioral and
cognitive behavioral interventions for outwardly-directed
aggressive behavior for people with learning disabilities. Results
indicated that interventions based on cognitive-behavioral
methods like modified relaxation, assertiveness training, and
anger management appear to reduce the aggression of
intellectually disabled people. Navaco used cognitive
behavioral treatment along with his management package
program for persons with intellectual disabilities. Results show
that the intensity of anger was significantly reduced, as was
reported by participants. Intellectually disabled people with
serious problem behaviours are suitable candidates for
cognitive-behavioural interventions.

Willner, Jones, Tams, and Green in their study assigned
fourteen clients with learning disabilities at random to two
groups- a treatment group and a waiting-list control group. It
was found that treatment group participants improved, on both
self- and carer-ratings, relative to their own pre-treatment
scores, and to the post-treatment scores of the control group.
Two components of the cognitively based anger control
intervention, i.e., relaxation and self-monitoring, can be
successful in their own right, where relaxation helps in reducing
anger and self-monitoring helps in reducing other challenging
behaviours. Cognitive-behavioral anger management is
effective in adults with mild intellectual disabilities in a group
format and improvements have been recorded on self-report
measures of anger as well as in emotional and behavioural
adjustment. Cognitive-behavioural training program has been
found effective in reducing aggressive behaviour and increasing
self-control. In their study Benson, et al. on the basis of
components analysis of a cognitive-behavioral anger
management program found that anger management training
with mentally retarded adults may be effective.

From the above review of literature it is evident that cognitive-
behavioural training program is effective in reducing aggressive
behaviour among persons with mental retardation, but there are
very few studies which have studied the effectiveness of
Novaco’s Anger Management package in managing aggressive
behaviour among persons with mental retardation. So in the
present study an attempt has been made for studying the
effectiveness of Novaco’s Anger Management package in
managing aggressive behaviour among persons with mental
retardation in Indian context.
Methodology

Participants: The study included 10 adults with mild and moderate mental retardation having aggressive behavior, aged 18 - 30 years (18 yrs 1 month-30 yrs, N=5; 30 yrs 1 month – 40 years, N=5). Five of the participants were with Mild Mental Retardation and the other five with Moderate Mental Retardation. All the participants had aggressive behaviour with/without other problem behaviours. None of the participants were having any other associated condition like epilepsy, hearing impairment, visual impairment. All the participants were staying with their parents and were attending centre based services at NIMH.

Research Design: The present study follows a “before and after without control group design”.

Tools used: All participants were administered Binet-Kamat Test of Intelligence standardized by V. V. Kamat18 and Vineland Social Maturity Scale- Indian adaptation by A.J. Malin19 to determine the level of general intelligence and adaptive behaviours respectively. Behavioral Assessment scale for Adults with Mental Retardation (BASAL-MR) Part –B developed by Dr. Reeta Peshawaria and Dr. D. K. Menon in the year 2000 at National Institute for the Mentally Handicapped, Secunderabad20 was used to elicit information on the current level of problem behaviors of the participants. It is suitable for adults with mental retardation aged 18 years and above. The BASAL-MR, Part-B consists of 109 items grouped under the following twelve domains: i. Physical harm towards others, ii. Damage property, iii. Misbehaves with others, iv. Temper Tantrums, v. Self-injurious behaviors, vi. Repetitive behaviours, vii. Odd Behaviors, viii. Inappropriate social behaviors, ix. Inappropriate sexual behaviors, x. Rebellious Behaviors. xi. Hyperactive Behaviors, xii. Fears

Response measures: Written consent was taken from the clients/guardians and they were explained about the procedure of the intervention. Initially participants were assessed by using BKT and VSMS. Depending on the score obtained on these tests, diagnosis of mental retardation was made as per ICD-10. To evaluate the effectiveness of anger management training program in managing the aggressive behavior in adults with mental retardation, the participants were identified by researcher’s observation and instructor’s report (instructors of the Department of Adult Independent Living of NIMH), which then was confirmed by using BASAL-MR PART-B, and which formed the pretest scores. Then 12 intervention sessions of anger management training were given on individual basis and the duration of each session was one hour. After that BASAL-MR PART-B was used to get the post test scores.

Intervention package program: In this intervention package program adults with mental retardation are taught to inhibit or control the aggressive behavior through self- instructions. The theoretical framework in this package consists of Novaco’s cognitive behavioural conceptualization of anger17, which has since then been used by various researchers and practitioners.

This package program was given in 12 intervention sessions. The duration of each session was one hour and during this one hour the participants were given ten minutes break. For the successful implementation of the intervention program, the following factors were considered: i. regular and intensive intervention sessions. ii. constant involvement of the subjects in the program. iii. a provision of 5 minutes session on regular basis to answer the queries of the subjects regarding the aggressive behaviour and the given package program.

Intervention Package program sessions: Introduction Session: In the first session of the training program the therapist and the clients introduced themselves to each other in a one to one setting i.e., the therapist and one client. Then the therapist explained the goal of the training program, the rules of participating and training procedure to the clients in a one to one setting. Then the clients were given the A-B-C (Antecedent-Behaviour-Consequence) sheet to identify the triggers of the aggressive behaviors. The therapist then asked the client to review the goals and procedures of the training program.

Cues and angerreducers Session: In the second session the client was asked to review the steps of the first session, he was helped to recall by giving clues if he had some difficulty in recalling the steps. Then the identification of the cues related to aggressive behavior was discussed with the client. After the identification of the cues the anger reducing techniques (reducers) were discussed with the client. The following techniques were used, i. Deep breathing, ii. Backward counting, iii. Pleasant imagery.

In deep breathing the client was asked to take a deep breath for five times when he identifies the cue of the aggressive behavior. In backward counting the adults with mild mental retardation were asked to count backwards from 20 to 1, and the adults with moderate mental retardation were asked to count backwards from 10 to 1 (because they can’t count backward from 20). In pleasant imagery the clients were told to close the eyes and imagine the pleasant scene that the client has ever witnessed. At last the therapist role played all the three reducers in front of the client and therapist asked the client to review the steps involved in the second session.

Triggers Session: In third session the clients were asked to review the steps involved in the first and second session. Then they were asked to identify the triggers of aggressive behavior (what makes you angry?). The therapist then role played all the steps explained to the clients till now i.e., identification of cues, applying reducers and identification of triggers. Then the clients were asked to review all the steps before ending the third session.
Reminders Session: In the fourth session the clients were asked to review the steps involved in the first, second and third session. After identifying the triggers explained to them in third session, they were explained how to use reminders like calm down and relaxation. The therapist then role played all the steps explained to the clients till now i.e., identification of cues, applying reducers, identification of triggers and use of reminders. Then the clients were asked to review all the steps before ending the fourth session.

Self evaluation Session: In the fifth session the clients were asked to review the steps involved in the first, second, third and fourth sessions. The clients were explained how to reward themselves when they successfully identify the cues, triggers, use of reminders and reducers. They were asked to give self-reward like self-patting, self-praising (good, well done). The therapist then role played all the steps explained to the clients till now, i.e., identification of cues, applying reducers, identification of triggers, use of reminders and use of self-evaluation. Then the clients were asked to review all the steps before ending the fifth session.

Thinking ahead Session: In the sixth session the clients were asked to review the steps involved in the first, second, third, fourth and fifth sessions. The clients were explained about the short and long term consequences of managing the aggressive behavior successfully like their interpersonal relations will be good and long lasting, their work behavior will be improved etc. They were also explained about negative consequences of aggressive behavior. Finally the clients were told to review the whole training program before ending the sixth session.

Rehearsal of full sequence Session: In these sessions the clients with the help of therapist rehearsed the training program. The therapist also introduced new skill behaviors in place of aggressive behaviors to the clients.

12 intervention sessions of anger management training lasting for one month ten days were given on individual basis and the duration of each session was one hour with ten minutes break. The gap between the two intervention sessions was two to three days. In the present study, all the 10 participants were given behavioural counseling in each session to implement the anger management training program successfully. At the end of 12 interventions sessions, BASAL-MR PART-B was used to get the post-test scores. The study also compared the effectiveness of anger management training program in managing the aggressive behaviour among adults with mental retardation with respect to age and level of retardation.

Data analysis: The data was analyzed by using the 17.0 version of SPSS. Statistical techniques used to analyze the data were: percentages, mean, standard deviation, Wilcoxon test, and Mann Whitney U test. The actual frequencies of aggressive behaviour were transformed into percentages for comparing the pre-test scores and post-test scores of the group as a whole. Wilcoxon test was used to analyze the significant difference between the pre-test and post-test scores. Mann Whitney U test for two independent samples was also used for analyzing the significant difference between the pre-test and post-test scores with respect to age and level of retardation.

Results and Discussion

Results: As indicated in (table 1), pre-intervention mean is 100 and SD is 0.00 and the post-intervention mean is 57.336 and SD is 5.817 which shows significant change in behavior after intervention (W= 0.005 at 0.05 l.s.).

Table 2 shows that the mean rank reduction for the age group (18 years 1 month- 30 years) is 4.00 and the mean rank reduction for the age group (30 years 1 month – 40 years) is 7.00. Though apparently it is evident from the table that the participants within the age group of (30 years 1 month – 40 years) have benefitted more from the intervention as compared to the participants within the age group of (18 years 1 month- 30 years), but the difference is not statistically significant.

As indicated in (table 3), the mean rank reduction for mild mental retardation group is 5.60 and the mean rank reduction for moderate mental retardation group is 5.40. Though apparently it is evident from (table 3) that the participants with mild mental retardation have benefitted more from the intervention as compared to the participants with moderate mental retardation, but the difference is not statistically significant.

Table-1

<p>| Showing pre and post intervention scores |
|---|---|---|---|</p>
<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Wilcoxon W Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>10</td>
<td>100.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Post</td>
<td>10</td>
<td>57.336</td>
<td>5.8177</td>
</tr>
</tbody>
</table>

*P< 0.05

Table-2

<p>| Showing reduction scores with respect to the age of the participants: |
|---|---|---|---|---|---|</p>
<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann-Whitney U</th>
<th>Exact Sig. [2*(1-tailed Sig.)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>(18 y1 m- 30 y)</td>
<td>5</td>
<td>4.00</td>
<td>20.00</td>
<td>5.000</td>
<td>0.117</td>
</tr>
<tr>
<td>(30y 1m and 40 Years)</td>
<td>5</td>
<td>7.00</td>
<td>35.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P > 0.05, ns
Discussion: Although different methods have been attempted in the treatment of aggressive behaviours, the only procedures which have produced consistently favourable outcomes are behavioural management of aggression. The major finding of the present study is that anger management training program is effective in managing aggressive behavior in adults with mental retardation. The above mentioned research finding is in line with the findings reported by Benson et al., who concluded that there were reductions in aggressive responding of intellectually disabled adults through the implementation of anger management training program. Cognitive-behavior anger management techniques have been found effective in managing aggressive behavior among adults with mental retardation by previous researches as well. It was evident from the post-test scores of BASAL-MR (Part-B), that there were reductions not only in the frequency of aggressive behaviors but other behavioral problems (for e.g., rebellious behaviors, damages property, and self-injurious behaviors) also. This finding of the present study is also in line with previous research finding by Golden, and Consorte who used cognitive-behavior therapy techniques to train mildly intellectually disabled individuals to control their anger. They noted reductions in their anger outbursts, moreover, anxiety and stress related symptoms were also reduced.

Another important observation of the present study is that most of the participants (8 out of 10 participants) were having deficits in social skills and were having less interaction with their co-workers and staff of the training centre. Similar finding is reported by Duncan, Matson, Bamburg, Cherry and Buckley who investigated the correlation of SIB and aggression with social skills among persons affected by severe and profound mental retardation. They found that such mentally retarded persons who displayed maladaptive behaviours have a restricted range of social/adaptive behaviours as compared to controls.

Another finding of the study reveals that there is a difference in the effectiveness of anger management training program in managing aggressive behaviors in adults with mild and moderate mental retardation with respect to the participant’s age. Though the difference is not statistically significant, the findings indicate a trend that higher the age more effective is the anger management training program in managing aggressive behaviors among adults with mental retardation. In addition to the effect of anger management training program, the difference may be attributed to the therapeutic services which the participants were receiving from the Department of Adult Independent Living (DAIL) and General Services of NIMH, the participants falling in higher age group have been receiving therapeutic services since a longer time as compared to the participants falling in lower age group.

Other finding of the present study reveals a difference, though not statistically significant, in the effectiveness of anger management training program in managing aggressive behaviors in adults with mental retardation with respect to level of retardation. The participants with mild mental retardation are more benefited by anger management training program in managing aggressive behavior as compared to adults with moderate mental retardation. It may be so, because participants with mild mental retardation are having less intellectual deterioration as compared to the participants with moderate mental retardation and comparatively they understand the instructions easily and they also know how to identify and use the cues, reducers and reminders for managing aggressive behaviors.

Conclusion

In conclusion, this research study has revealed that the anger management training program is effective in managing aggressive behaviours in adults with mental retardation in general and it is more effective in mild level of retardation as compared to moderate level of retardation. Research findings of this study also suggest that this anger management training programme is more effective in higher age groups (i.e., 30 years 1 month – 40 years) as compared to lower age groups (i.e., 18 yrs 1 month - 30 yrs.). Future researches on effectiveness of anger management training program in adults with mental retardation can be conducted on larger samples with a control group and over an extended number of sessions to keep maintenance in reductions of the frequency of aggressive behaviours. The major drawback of the study can be that the participants were receiving therapeutic services from the Department of Adult Independent Living (DAIL) and General Services of NIMH, which may confound the actual results of the study. Such drawback of the present study can be overcome in future researches and to study the effectiveness of anger management training program properly a control group may be taken, which was not taken in the present study.

References

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