SUMMARY

From the time dance has evolved in the universe people used to reciprocate their feelings, needs, and happiness through various body movements in rhythms. The dance rituals in which the roots of Dance Movement Therapy lies originate from imageless dancing in which the primary goal is to attain transcendental ecstasy. Here the dancer focuses inward toward release of ego and the outer world is replaced by exhilaration. Dance in the past played a vital role in native cultures of America, Europe, Asia, and Africa. But with the innovative work of great dancers like Isadora Duncan, a new trend of dance form came to the forefront. Reich, a psychoanalyst, looked at the patient's body and analyzed that the patient not only represses but how he repressed it somatically is more important in understanding the body of the individual. Reich enabled character analysis based on defensive armoring of the body and the process of regaining adaptive mobility. Specific movement patterns were developed to release blocked, tensed areas of the body allowing effective expression and release. Thus the importance of Dance Movement therapy came to the forefront. Freud, father of psychoanalysis, opened the door for this therapy but the system was elaborated by his disciples, Jung, Adler, and Reich. Carl Jung's development of the techniques of "active imagination" acted as a vehicle for expressing unconscious material which paved the way for DMT. It was in the fifties that Mary WHITEHOUSE, a European trained American dancer teacher who was influenced by Jungian analysis, began to draw connections between authentic movement expressions and flow of symbolic material.

Autism is one such disability where an individual binds himself in a glass world from where he cannot either reach others or at the same time reciprocate others. So the problem is immense and this basic problem in encoding and decoding stimuli leads to occurrence of other problem behaviors.

The impairment in autism are characterized by a triad of impairments in
social and emotional understanding, communication and flexibility of thought and behavior (Jordan, 1999; Wing, 1996), each of which can occur with differing severity (Lord & Risi, 2001).

But there are many therapies which directly deal in developing socialization and communication like, sensory integration therapy, speech therapy, ABA technique, TEACCH method etc but some new therapies such as music therapy and dance therapy has also come to the forefront to deal with these triad of impairments. In this context we must consider dance movement therapy as one such therapy where the therapy deals directly with body flexibility and tries to deal with some important context such as

- Developing body attitude
- Developing body awareness
- Developing body coordination
- Developing body reflex (Barteniff).

‘Body Attitude’ is an important component of flexibility of any living being.

"Body Attitude” can be described as a state by which a person holds himself while moving, performing a task, standing still with appropriate body shape connected with the task being done. Children with autism are not quite aware of their own self, their body parts, their body part relationship, and how to deal with a situation bodily. They have difficulty in body attitude, body awareness, understanding of space, body part relationship, usage of various parts of the body for a task, problem in coordination etc. These various difficulties make their movement and ability to cope with situations more clumsy and inappropriate and thus they find a lot difficulty in communication, socialization and other important aspects of life.

For our daily life we use lots of movements to express our needs, our requirements, our difficulties and problems as well. The autistic children find a great difficulty in these spheres. So these problems in autism made the
researchers to think about how to develop their body attitude in order to provide those easy ways of communication and for better socialization.

All these factors are interrelated. If we are concerned in developing their body attitude which covers a vast arena of understanding of space, effort, shape, kinesphere, kinesthetic memory and at the end understanding of gestalt which is a vast concept itself.

Dance is one such therapy where Researches in the field of physiological aspect has shown that stimulation of neurons in the motor cortex resulted in body movements in a predictable way, acts as a mode of non-verbal expression and communication and reduce problem behavior and develop socialization, communication and body attitude in autism.

The present study comprise of 80 autistic children of which 40 children are in the experimental group who were exposed to DMT and the other group 40 children are in the control group who were devoid of DMT. Both the groups were exposed to other modes of therapies such as, cognitive therapy, speech therapy, sensory integration therapy, play therapy etc.

In the experimental group each child were given 20 sessions of DMT and the duration of each session was 45 minutes, thrice a week.

Besides this therapy sessions the study also aimed to develop a checklist where one can measure the body attitude development in a quantified way in autism in an Indian context. Thus the “Body attitude Checklist” was prepared.

*The study is divided into two parts.*

**Construction of the scale**

**The experiment itself.**

The scale construction was done following the rules and regulations of the system. The items were written after planning on which particular domains
the questionnaire will be formulated. Those problems, which were related to autism after thorough observation and analysis, were written. After thorough observation and analysis those problems which directly address the muscular coordination in relation to cognition, emotion, perception, sensation, behavioral problems of autism were written, and were consulted with a group of psychologists for their recommendation, criticism and suggestions. According to their suggestions the items were modified and 65 specific components were selected.

Then following Edward’s 14-point rules finally 49 items were written in Bengali and English.

These 49 items were given to 21 judges (7= Psychiatrists, 3= Special educators, 4= Psychologists, 7= parents of autistic children). All had prior observation and experience about autism. They were requested to judge the items on the basis of a 5 point relevance scale.

After relevance judgment the items whose mean were 3.5 and more and SD 1 and less were selected. Thus ultimately 40 items were selected.

These 40 items were administered on 60 autistic children. For item validity, a item-total correlation matrix was done. Only the items which showed significant correlation (‘r’ value = 0.688-0.900) with total score were taken as contributory items. Thus 36 items were selected for the final scale.

Finally the reliability of the scale was computed by Cronbach’s alpha. The reliability was found to be 0.9852. On 60 candidates the mean was 114.9833 while the SD was 28.07.

The validity of the test was done by using clinical validation method. The original scores of the scale (BA) is inversely related to the severity of the problem i.e. more the problem less the score and vice-versa. The product moment co relation between the scores of the test (BA) and criteria scores of 30 children with autism (-0.660) shows significant negative relation
between clinical observation of scores of BA scale. The clinical validity of the scale was established.

The experiment comprised of pre-session and post-session. Where the development was measured before the therapy was given for the experimental group and after the therapy was given for the same group. The control group was also measured as pre session and post session but they were not given DMT. For both the groups other therapies were continuously given.

Permission was taken from the institution to administer DMT and to make a favorable dance therapy room for administering DMT studied. Permission was taken from guardian for administering DMT only for the experimental group. Rapport was established with each child before hand and to measure Dependent variables, i.e, socialization, communication, problem behavior and body attitude of the subjects VSMS, Wessex language test, Problem Behavior Checklist and Body Attitude Scale were administered respectively one by one with a sufficient time gap in between each test. The sessions continued for 45 minutes thrice a week for each child. Each child received 20 sessions as a whole. This was given only to experimental group. Laban Movement Analysis and Bartelinnff Principles were practiced on experimental group. For the post intervention session all the dependent variables like pre session were measured after immediate completion of 3 months intervention. At the same time a post data was taken for control group to compare the development. After three months again a post data was taken to find whether the effect of therapy is remaining for a long time for both experimental group and control group. To prove the effect of DMT, a follow up session was taken after 9 months of the Intervention for experimental group only. All over four sessions were considered for statistical analysis- Pre-session, Post I – session (immediately after intervention for 3 months for each child), Post II – session (3 months after the intervention, Post III – session (9 months after the intervention). For analysis up to .05 level was considered.
Means, SDs and ‘t’ tests were computed for all the variables in different sessions and for two groups separately.

The analysis of the data reveals that in the mean and SD of two groups for all the variables, irrespective of sessions, the mean of the experimental group is found to be significantly greater than the mean of control group for Communication, Body Attitude and Socialization and significantly lesser score in Problem Behavior. These differences may have been occurred due to the effect of DMT, as all the sessions are taken together in this table and experimental group was exposed to DMT and the control group was devoid of DMT. Though both the groups were addressed to other therapies, but the increase in mean for all the variables may be attributed for DMT.

While analyzing, of significance between pairs of sessions socialization shows no significant difference between any pairs of sessions whereas languages, Problem Behavior and Body Attitude show significant differences between some pairs of sessions. This result mixed up the full group, i.e., who were exposed to and not exposed to DMT. So, to derive specific result, further analyses of each group are done.

Computing the mean and SD and their ‘t’-ratios of two groups for three sessions separately. It is seen that in pre session there is no significant difference in socialization and body attitude between two groups and there are significant improvement in socialization after DMT which revealed from the scores of Post 1 and Post 2 sessions. From this we can attribute the effect of DMT on socialization of the children with Autism. But the results of other variables need special justification. It is seen that there are significant difference between two groups even in pre sessions along with two post sessions. So, one can argue that if the difference is already exists, can it be attributed to DMT for Language and Problem Behavior. To justify, it can be said that the level of significance are much higher in Post sessions in comparison to pre sessions, i.e., in Language the difference in pre is at 0.029 where in Post I it is 0.002 and Post II it is infinity. It can be said that as each and every child with autism is unique in nature they showed XIV
different scores even after much effort was given for homogeneity. But the
gain of these levels of significance cannot be ignored in case of autism. This
is again determined by the next result table where separately the two groups
were considered.

For experimental group while analyzing the result it was found that that
other than communication, there are gains in all variables for experimental
group in comparison to its control counterpart. Speech therapy is very
effective for communication and these children are getting excellent speech
therapy in their institute. But detail observation of the researcher showed
that there is a marked improvement in their non-verbal communication and
body language after DMT which is not very reflected in score but reflected in
their daily activities. Improvement in Non verbal expression can be
attributed mainly to DMT. This particular result denotes that there is an
effect of DMT on Socialization, Body Attitude and Problem Behavior in the
experimental group. As both the groups were exposed to all other therapies
but only the experimental group was exposed to dance movement therapy
so the gain in body attitude and problem behaviour and socialization can be
attributed due to this factor. In control group the gain was limited.

The follow up session after three months of the therapy shows steady
improvement in communication, socialization and problem behaviour even
after the completion of experimental sessions up to 6 months. But at the end
of 9 months after completion of therapeutic sessions, i.e., Post III, all the
curves show a slight decrement. But still there are significant differences
between Pre and Post III sessions which indicate that though there is a
decrement but it cannot turn the subjects back to the previous conditions
even after nine months of therapy.

Thus it can be attributed from the scores that there is a fall in development
after 9 months of the intervention. But the fall is not so extensive that it
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development after 9 months of the intervention. But the fall is not so extensive that it shows no effect of the therapy. Thus we have to say that the intervention needs to be continued so that the effect of the therapy remains for a lifetime.

Thus it can be said that DMT is a therapy which has created a niche in the field of alternative therapies in order to heal numerous kinds of disorders physical or mental. But being an Indian it’s our need to utilize this therapy in the filed of medical science as well as psychology to heal different problems related to mankind in an Indian context.