



Saving Lives Through Dance

**ASSESSING THE IMPACT OF DANCE MOVEMENT THERAPY (DMT) ON THE
TRAUMATIC SYMPTOMS OF THE SURVIVORS OF TRAFFICKING AND
SEXUAL VIOLENCE**

Supported By:



**ASSESSING THE IMPACT OF DANCE MOVEMENT THERAPY (DMT)
ON THE TRAUMATIC SYMPTOMS OF THE SURVIVORS OF
TRAFFICKING AND SEXUAL VIOLENCE**

- **Impact Assessment Team: Kolkata Sanved and Kamonohashi Project**
- **Principal Researcher: Dr. Upali Dasgupta.**

- **Partner Organizations:**
 - **International Justice Mission-Mumbai, Rescue Foundation, and Sukanya Home in Kollkata.**
- **Grant Support: The Ministry of Foreign Affairs, Japan, Kamonohashi Project**
- **Time line: The assignment is of 8 months (July, 2015 to February, 2016)**
- **Target population: Survivors of Trafficking and survivors of sexual violence**
- **Study Sites: Two shelter homes (Rescue Foundation- Boisar Home in Mumbai (State: Maharashtra), and Sukanya Home in Kolkata (State: West Bengal)**
- **Deliverables : Reports (English: By Dr. Upali Dasgupta and Japanese translation by Dr. Haruna)**

**ASSESSING THE IMPACT OF DANCE MOVEMENT THERAPY
(DMT) ON THE TRAUMATIC SYMPTOMS OF THE
SURVIVORS OF TRAFFICKING AND SEXUAL VIOLENCE**

(A Six Months Pilot Study)

The Final Research Report

(February, 2016)

Report submitted By:

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ASSESSING THE IMPACT OF DANCE MOVEMENT THERAPY (DMT) ON THE TRAUMATIC SYMPTOMS OF THE SURVIVORS OF TRAFFICKING AND SEXUAL VIOLENCE

Abstract :

Purpose: This was a six months pilot study which endeavoured to assess whether Dance and Movement (DMT) has any therapeutic impact on the traumatic symptoms of the survivors of trafficking/sexual violence.

Methods: Following Purposive Sampling method a representative sample of 50 survivors of trafficking/sexual violence was selected from two different sites of India- 30 clients were selected from the Mumbai site and 20 clients were selected from the Kolkata site. Then, following the wait-list control group design, DMT was administered only to the treatment group while the control group was on wait for six months. Total N randomized at the Mumbai site: 15 to DMT group, and 15 to control group and total N randomized at the Kolkata site: 10 to the DMT group, and 10 to the control group. The intervention of DMT has started in the first week of August 2015, after collecting Baseline data on the six domains of traumatic symptoms of TSCC scale. After 3 months and after 6 months of DMT intervention, data were collected and treated by t- statistics.

Results: After getting dance movement therapy for the first three months, the traumatic symptoms of anxiety, depression and post-traumatic stress of the treatment group (TG-2) of Sukanya Home-Kolkata have reduced significantly as compared to the control group (CG-2). After the completion of six months of DMT intervention, the TG3 survivors of both the sites (Kolkata and Mumbai sites) have shown significant reduction in all of the six traumatic symptoms of TSCC, as compared to the CG3 of both the sites.

Contribution: The present study findings indicated that the intervention of DMT has a major positive impact on the improvement of the six traumatic symptoms of the survivors of trafficking/sexual violence. It can also enhance the DMT participants' ability to take self- care, to initiate and maintain social relationships, to communicate and understand and also to work. The Dance Movement therapy, as used in this study to reduce traumatic symptoms of the survivors of trafficking/sexual violence, is replicable elsewhere especially in Day care centres, Psychiatric treatment centres and other such institutional agencies.

Key Words: DMT: Dance Movement Therapy, TG1: Baseline Treatment group , CG1: Baseline control group, TG2: Treatment group after three months of DMT, CG2: Control group after three months of DMT, TG3: Treatment group after six months of DMT intervention, CG3: Control group after six months of DMT intervention.

Introduction:

The Dance Movement Therapy (DMT) is the use of movements and dance to help clients to express their feelings and facilitate the integration between the body and mind. Research has demonstrated a reciprocal relationship between motion and emotion as neurophysiologic co-relates, whether it comes to muscular, attitudinal or psychological states (Berrol, 1992). DMT is a holistic approach recognizing the importance of body, thinking and feeling processes and works towards an integrated self. By expressing their feeling through movements, the participants can be made aware and get in touch with parts of themselves which are not communicated verbally. Central dependent variables on which DMT for clinical populations in general shows good effects are vitality, mood/affect, anxiety, self-efficacy /coping and body image (Goodwill, 2006).

According to the Ethical Code by European Association Dance Movement Therapy¹, Dance Movement Therapy (DMT), also known as Dance Movement Psychotherapy (DMP), is the therapeutic use of movement to further the emotional, cognitive, physical, spiritual and social integration of the individual. Dance as body movement, creative expression and communication, is the core component of Dance Movement Therapy.

DMT is:

- Focused on movement behaviour as it emerges in the therapeutic relationship. Expressive, communicative, and adaptive behaviours are all considered for group and individual treatment. Body movement, as the core component of dance, simultaneously provides the means of assessment and the mode of intervention for dance/movement therapy;
- Is practiced in mental health, rehabilitation, medical, educational and forensic settings, and in nursing homes, day care centres, disease prevention, health promotion programs and in private practice;
- Is effective for individuals with developmental, medical, social, physical and psychological impairments;
- Is used with people of all ages, races and ethnic backgrounds in individual, couples, family and group therapy formats².

¹EADMT Ethical code (n.d.). Retrieved from European Association Dance Movement Therapy web page <http://www.eadmt.com/?action=article&id=24>

²About Dance Movement Therapy (n.d.). Retrieved from American Dance Therapy Association web page http://www.adta.org/About_DMT/ <http://www.eadmt.com/?action=article&id=24>

In a research study, Brooks and Stark (1989) found statistically significant changes in depression and anxiety in a group of psychiatric inpatients after a single session of DMT, compared to a no-treatment control group. They explored whether there is reason to assume that movement and dance as therapy has a positive effect on mental health. It is reasonable to believe that any therapy that is efficient in terms of enhancing abilities to recognize and express affect, is an efficient treatment. DMT has been shown to be effective in the treatment of depression (Heimbeck & Hölter, 2011; Jeong, et al., 2005; Koch, Morlinghaus, & Fuchs, 2007). There is a growing application of DMT in work with war veterans, people surviving with childhood sexual abuse and family violence.³ DMT can enhance life quality and reduce symptoms of depression and anxiety (Byrne & Byrne, 1993; Ritter & Low, 1996; Lane, 2001; Ommundsen, 2000; Stathopoulou, Powers, Berry, Smits & Otto, 2006; Taylor, 2006)

DMT has in fact been used in work with traumatized patients (Gray, 2001; MacDonald, 2006; Meekums, 1999; Mirro-Finer, 1999; Moore, 2006; Thulin, 1999). In the last 15 years DMT has also been used to reduce stress and anxiety associated with chronic diseases (Goodill, 2006).

A study conducted in Finland⁴ investigated using body- and movement-based therapy intervention in the treatment of depression. DMT intervention could decrease the symptoms of depression and anxiety.

In India, Kolkata Sanved is the pioneer institution on DMT since 2004. While working for the survivors of trafficking, the stakeholders of the institution have noticed the Survivors' trauma, fear, and apprehension about the judiciary and the judicial process that affect the court procedures both in terms of outcome (eg. the perpetrator may be acquitted since the victim is too traumatized or in denial and does not provide evidence against him/her) and time (victim's trauma in court may result in her inability to speak her mind for days or provide other evidence which in turn may slow down the process of judgement).

With the intention to reduce the trauma symptoms of the survivors of trafficking / sexual violence, to provide them the opportunities to make decisions on a day to day basis and to enable them to make their reintegration plans, to make the survivors resourceful with the tools and knowledge to know their rights and build their confidence, to enhance their self-esteem to voice their views and become independent and empowered, Kolkata Sanved has taken the initiative to provide Dance Movement Therapy to these survivors. It was expected that the intervention of DMT would be able reduce their traumatic symptoms.

In the present endeavour, a 'six months pilot study' was conducted on 50 survivors of trafficking/sexual violence with the aim to assess through scientific research the therapeutic impact

³ About Dance Movement Therapy (n.d.). Retrieved from American Dance Therapy Association web page http://www.adta.org/About_DMT/

⁴ About Dance Movement Therapy (n.d.). Retrieved from American Dance Therapy Association web page http://www.adta.org/About_DMT/

of DMT on the trauma symptoms of the survivors. Four well trained DMT therapists from Kolkata SANVED have taken DMT sessions on some of the selective clients. The sample was purposively selected for DMT from two different sites in India- a) Kolkata Site and b) Mumbai site. This study has also assessed whether DMT could promote their bonding, increase self- awareness, encourage personal expressions, promote positive self and body image, build group cohesion and teamwork, to increase resiliency to cope with stresses and the fun and feel good factor.

A systematic assessment was needed to accurately gauge the efficacy of dance/movement interventions for survivors of trafficking and sexual violence as well as to identify variables that may moderate its effects.

OBJECTIVES:

- 1) To examine the effects of Dance Movement Therapy on the overall traumatic symptoms of the survivors of trafficking and sexual violence.
- 2) To compare the control group with the treatment group in order to find out the impact of dance movement intervention on each of the six domains of traumatic symptoms.
- 3) To identify the variables under study that may moderate the effect of DMT.
- 4) To find out whether time–period of Dance Movement Intervention makes any difference in its impact on the survivors’ traumatic symptoms.
- 5) To compare the effects of Dance Movement Therapy between two sites, i.e., the Mumbai site and the Kolkata site in order to find out whether difference in psycho-social milieu makes any difference in the impact of Dance Movement intervention.

Once, it is proved through this scientific research endeavour that DMT has significant positive (healing/beneficial) impact on the clients under study, the findings will enable the project funders, decision makers, service planners and the service providers of Kolkata Sanved to introduce DMT for each and every survivors of Trafficking to reduce their trauma, to empower them for judicial trials, to enhance their well-being, to make them more assertive for setting their future goals and to evolve/develop/modify information-based Dance Movement Therapy plans with clear targets. It will help to establish DMT as an effective rehabilitation program for the survivors of human trafficking and sexual violence.

METHODS

The **first phase** of this quantitative study was initiated in the first week of August'2015.

Sample:

Following Purposive Sampling method a representative sample of survivors of trafficking or sexual violence (N=50) were selected from two different sites of India: 1) from Kolkata- Sukanya Home and 2) from Mumbai – Rescue Home. Sample was selected on the basis of the following inclusion and exclusion criteria:

Inclusion Criteria:

- i) Survivor of trafficking or survivor of sexual violence,
- ii) Gender – female,
- iii) Age range: 13 years to 19 years,
- iv) Received counselling session (at least once) after coming to the concerned home.
- v) Regular participation in other activities: participating in regular household chores, other therapies and vocational training provided (if any) to them, and getting standard care in the ‘Home’.

Exclusion Criteria:

- i) Mental Illness,
- ii) Mental retardation
- iii) Drug/ Alcohol dependence.
- iv) Female survivor of trafficking /sexual violence with physical handicap,
- v) Physical Co-morbidity (like- having HIV, TB etc.)

Study Design:

Following Purposive Sampling method a representative sample of (N=50) survivors of trafficking and sexual violence was selected on the basis of the inclusion and exclusion criteria from two different sites of India: 1) from Kolkata- Sukanya Home and 2) from Mumbai – Rescue Foundation: Boisar Home. In both the sites, each survivor was assigned an ID number. In Mumbai site, following the Random Number Table the ID numbers of the survivors was assigned into two different groups. One group was named as ‘Group A’ and the other Group was named as ‘Group B’. Both the list of two groups was kept in two separate closed envelopes. After keeping both envelopes in a bowl, any person, who knows nothing about the survivors or about the study, was asked to blindly pick up only

one envelop from the bowl. The enveloped group which is then picked up was assigned as Control group. And the other group was assigned as the Treatment group.

In the Kolkata site, that is, in the Sukanya Home, a Control group and a Treatment group was formed following the same procedure.

The 2 Control groups formed were the Wait-list Control Groups, whereas, the 2 Treatment groups formed were the Dance Movement Therapy Groups.

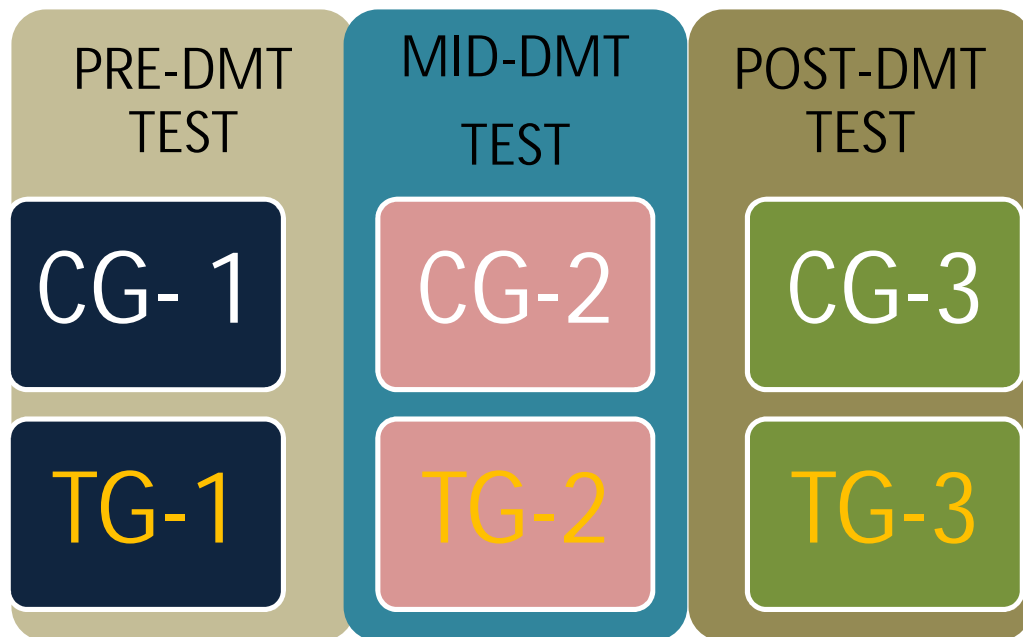
Following the 2-arm Wait-list Control Group design, the Dance Movement Therapy (DMT) was administered only to the Treatment group while the control group was kept on wait for six months for DMT.

Thus the study was carried out at two sites resulting in four groups:

Mumbai Site	Control group (CG)	Treatment Group (TG)
Kolkata Site	Control group (CG)	Treatment Group (TG)

- a) Treatment Group: Dance movement therapy group
- b) Control groups: Wait-list control group.

The schematic presentation of the Design of the study:



Pre-DMT Test : is the Baseline Data .

Mid-DMT Test: is after three months of DMT intervention.

Post-DMT Test: is after six months of DMT intervention.

The Pre-DMT Test CG-1 is the Baseline Control group

The Pre-DMT Test TG-1 is the Baseline Treatment group

The Mid-DMT Test CG-2 is the Control group after 3 months of DMT

The Mid-DMT Test TG-2 is the Treatment group after 3 months of DMT

The Post-DMT Test CG-3 is the Control group after 6 months of DMT

The Post-DMT Test TG-3 is the Treatment group after 6 months of DMT

Information on Intervention: Dance movement therapy sessions:

In both the sites, Dance movement therapy was provided by two formally trained dance movement therapists.

Total Duration: 96 hours

Total No. of DMT sessions with 3hours length: 24 (in Six months) = 72 hours

Total No. of DMT sessions for whole day: 4

Length of whole Day session=6 hours.

Instruments:

a) A Socio-demographic Characteristics Schedule (developed by the researcher) included Identification number of the survivor, Age, Gender, Religion, Educational qualification, Marital Status, how long staying in that 'Home', Her Original home- country, state, city/ village, family members, when she has seen her family members last, after leaving home where she had to go, Who has brought her to that place, How long she had to stay there, Received any special training, therapy or service.

b) Traumatic Symptom Checklist for Children (TSCC) is an internationally standardized tool. This scale contains 54 Questions. It has six domains, these are: i) Anxiety, ii) Depression, iii) Posttraumatic Stress, iv) Sexual Concerns, v) Dissociation, and vi) Anger. Sexual Concerns has two sub-scales: Sexual Preoccupation and Sexual Distress. Target age of this scale is 13 years to 16 years. This is a Self-reported scale with Likert type of questions (0 = Never, 3 = Often).

Hypotheses:

- 1) **TG-2** will differ significantly from **CG-2** with respect to each of the six domains of TSCC **after three months** of DMT Intervention.
- 2) **TG-3** will differ significantly from **CG-3** with respect to each of the six domains of TSCC **after six months** of DMT Intervention.
- 3) **TG-1** will differ significantly from **TG-2** with respect to each of the six domains of TSCC **after three months** of DMT intervention.
- 4) **CG-1** will differ significantly from **CG-2** with respect to each of the six domains of TSCC **after three months** of DMT intervention.
- 5) **TG-2** will differ significantly from **TG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.
- 6) **CG-2** will differ significantly from **CG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.
- 7) **TG-1** will differ significantly from **TG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.
- 8) **CG-1** will differ significantly from **CG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.
- 9) **Mumbai-TG-2** will differ significantly from the **Kolkata-TG-2** with respect to each of the six domains of TSCC **after three months** of DMT intervention.
- 10) **Mumbai-CG-2** will differ significantly from the **Kolkata-CG-2** with respect to each of the six domains of TSCC **after three months** of DMT intervention.
- 11) **Mumbai-TG-3** will differ significantly from the **Kolkata-TG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.
- 12) **Mumbai-CG-3** will differ significantly from the **Kolkata-CG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.

Ethics:

The principle of informed consent and confidentiality was applied. If the inclusion and exclusion criteria were fulfilled, the client was counselled to be a part of the study and her written consent was obtained. In case of minor client, written consent was taken from the head of the institution (Home). Each and every participant was informed of the risks and benefits of participation in the research prior to starting the research study. The information collected about each client during the course of

the study was kept strictly confidential. No physical test was done. Ethical approval from all concerned organizations was taken.

Description of the Two Sites:

Sukanya Home: The accommodation capacity of Sukanya Home is 100. It is a state government run Social Welfare Organization capacitated with government employees. This Home is located in a calm and quiet place of the city of Salt Lake, Kolkata. Here, the girls who take shelter are specially brought by the police. All legal procedures are followed before taking a girl under the shelter of Sukanya Home. The Trafficked girls here are not only sex trafficked survivors. There are other trafficked girls who were trafficked for domestic labour (helper). Many of them did not get a penny after working for several months. There are other types of girls like- Missing Child, Child marriage, Under 18 years, Domestic Violence, Sexual violence.

Now, they have given shelter to two girls with mental illness and four deaf and dumb girls. These girls are only getting shelter here, but no other specific services are provided to them. A lady Assistant Superintendent is the Head of the Organization. One probation officer works under her.

In Sukanya, residents themselves prepare their lunch and dinner. Each and every resident has to participate in cooking or preparation of food. For this purpose, they follow a well organized roster. Who will do what kind of activities and when are well planned. They have a peer support group. The group decides and monitors the assigned jobs of the residents.

They take part in different types of vocational training/activities. As vocational training they have learnt tailoring, cooking, other domestic chores, stitching, gardening, Jewellery making, Crafting, Beauty parlour related job, embroidery. Some girls are learning marshal art (Karate). They also participate in Dance and Music classes.

The Sukanya Home organizes regular education classes. Sukanya Home makes arrangement for continuation of studies of the survivors. It runs a school inside the premises where one can study till class eight. They also make arrangement for board examinations. They go for outing at least three times in a year. The Home makes arrangements for the girls to visit Puja Pandals during Durga Puja Festival, on the world Tourism Day and during winter one day visit to the Zoo. Sukanya

Home is a three storied building. They have all total 80 beds. So, many a times these girls have to share bed. Space encroachment is a recent problematic issue which needs to be addressed. In Sukanya Home, two volunteer counsellors provide counselling services from two different NGOs, but not regularly.

The Boisar Home: Boisar Home is a Non- government Organization. It is located in a village like atmosphere and it extends an amazing psychological milieu of calmness with large green area. Boisar Home is a well organized shelter which provides separate boundary area for different types of girls, like, for the survivors of Trafficking they provide different boundary area, for the girls with

mental illness they provide different area and different area for the mentally challenged girls.

The girls participate in different types of vocational training organized for them by the authority. They get vocational training in computer operation, cooking, tailoring, Beauty parlour related job, mehendi designing, and other domestic chores etc. They also participate in Dance and music classes, in Marshal art classes (Karate).

Girls who are interested in education, they all attend in-house education classes. There is one girl who goes out of the premises to attend normal school. The authority of Boisar Home works hard for the successful and speedy restoration of the girls in their family. In some cases, they also make arrangement for some girls' marriage.

In Boisar Home, there is one regular professional counsellor. One Sister comes to counsel the girls regularly.

Collection of Data:

Once recruitment of the survivors of trafficking/sexual violence to the treatment group and control group is over, collection of data has started. The sample was selected from two different sites of India which represent two different psycho social milieu, i.e., a) the Mumbai Site- the Rescue Foundation – Boisar Home (State: Maharashtra), and b) the Kolkata Site- Sukanya Home (State: West Bengal).

If the inclusion and exclusion criteria were fulfilled, the client was counselled to be a part of the study and consent was obtained.

Socio-demographic Characteristics Schedule was filled up by the principal investigator/ counselor of every client. Then the TSCC scale was administered to measure the status of traumatic symptoms of the participants. As the TSCC is a self-reported questionnaire, and the participants of this study were not sufficiently able to respond to the self-administered questionnaires, the interviewer had explained verbally each and every statement of the questionnaire following the standardized instructions. Finally the scores so obtained were compared a) between the Control and Treatment groups in each site, and b) between the two site's Treatment groups and control groups to establish the causal relationships.

Three times the research based information were collected from the Clients -

First Phase- when **Baseline Data** was taken.

Second Phase - after **three months** of DMT intervention.

Third Phase - after **Six months** of DMT intervention.

On the basis of the above mentioned inclusion and exclusion criteria, the study was initiated with a sample size of 50 (N=50) i.e., from the Boisar Home, the Pre-DMT data was collected from 30 survivors of trafficking (TG1=15, CG1 =15), and from the Sukanya Home, the Pre-DMT data was collected from 20 survivors of trafficking and sexual abuse (TG1=10, CG1=10).

DMT Intervention has started in the first week of August'15 after collecting Baseline data on the six domains of TSCC. After 3 months and also after 6 months of DMT administration, data was collected.

The **second phase** of this quantitative study was initiated in the first week of November 2015.

After providing Dance Movement Therapy (DMT) for three months the mid-treatment assessment of the impact of DMT on the six symptoms of Trauma was done. The TSCC scale was used for the assessment of Trauma symptoms.

The Mid-DMT data was collected from 46 survivors, i.e., N= 46. In the Boisar Home- Mumbai, one survivor from the Treatment group and two survivors from the control group have been restored in their original home. As a result, in Boisar Home, the TG2 = 14 and the CG2 = 13. In the Sukanya Home- Kolkata, one survivor from the control group has been restored. So, in Sukanya Home, the TG2 = 10, and the CG2 = 9.

The **third phase** of this quantitative study was initiated in the last week of January 2016

After providing Dance Movement Therapy (DMT) for six months the Post-DMT assessment of the impact of DMT on the six symptoms of Trauma was done. The TSCC scale was used for the assessment of Trauma symptoms.

The Post-DMT data was collected from 43 survivors, i.e., N= 43. In the Boisar Home- Mumbai, two survivors from the Treatment group and one survivor from the control group have been restored in their original home. As a result, in Boisar Home, the TG3 = 12 and the CG3 = 12. In the Sukanya Home- Kolkata, the TG2 = 10, and the CG2 = 9.

Statistical Treatment: Data was collected at the Baseline, after 3 months of DMT intervention and after 6 months of DMT intervention. All statistical analysis was performed using the SPSS (Version 22.0) for Windows. Clients' Socio-Demographic Characteristics Schedule related data was expressed in terms of percentage and in terms of Descriptive statistics and Pearson's correlation r.

Results of this pilot study is presented in two different sections. **Section I** represented the **Qualitative and Descriptive statistics** of the sample under study. And **Section II** represented the **Quantitative analysis** of the data collected from the survivors using TSCC scale. This quantitative analysis has also facilitated the verification of 12 Hypotheses drawn under the Methods section.

Results:

Section: I

The Qualitative and Descriptive statistics

The Demographic Profiles of the Survivors of Trafficking/ Sexual Violence:

Age-Group	Sukanya Home				Boisar Home			
	TG		CG		TG		CG	
	N	%	N	%	N	%	N	%
12 yrs - 14 yrs	3 *(B:1)	30%	3 (B:1)	30%	0	0%	0	0%
15 yrs - 17 yrs	7 (B:2)	70%	6 (B:5)	60%	11 (B:5)	73%	10	67%
18 yrs - 20 yrs	0	0%	1 (B:1)	10%	4 (B:1)	27%	5 (B:3)	33%
Total:	10	100%	10	100%	15	100%	15	100%

*B: Bangladeshi

Table 1 shows that, a greater percentage of survivors (TG: 70% and CG: 60%) of Sukanya Home belong to the age group of 15 to 17 years. But there is only one survivor in the CG who is Major. Also in case of Boisar Home, a greater percentage of survivors (TG: 73% and CG: 67%) belong to the age group of 15 to 17 years. Interestingly, in Boisar Home, there is no survivor who belongs to the age group of 12 to 14 years. Table 1 is also depicting the distribution of Bangladeshi girls according to their age group.

Table- 2 : RELIGION

Religion	Sukanya Home				Boisar Home			
	TG		CG		TG		CG	
	N	%	N	%	N	%	N	%
Hindu	4	40%	4	40%	7	47%	10	67%
Muslim	6	60%	6	60%	8	53%	5	33%

Table 2 shows the percentage of religious affiliation of the survivors of the Sukanya Home and the Boisar Home. It is clear from this Table 2 that most of the survivors (TG:60%, CG:60%) of Sukanya Home are Muslim by religion, whereas, in the Boisar Home, the greatest percentage of survivors are Hindu (CG:67%).

Table- 3 : MARITAL STATUS

Marital Status	Sukanya Home				Boisar Home			
	TG		CG		TG		CG	
	N	%	N	%	N	%	N	%
Unmarried	6	60%	7	70%	8	53%	10	67%
Married	4	40%	3	30%	7	47%	5	33%

The percentage of marital status of the survivors of the two sites is mirrored in Table 3. It shows that, 70% of the CG of Sukanya Home and 67% of the CG of Boisar Home are unmarried. And, 40% of the TG of Sukanya Home and 47% of the TG of Boisar Home are married.

Table -4 : EDUCATIONAL QUALIFICATION

Educational Qualification	Sukanya Home				Boisar Home			
	Treatment Group		Control Group		Treatment Group		Control Group	
	N	%	N	%	N	%	N	%
Illiterate	1	10%	4	40%	3	20%	8	53%
Primary Education	7	70%	2	20%	4	27%	1	7%
Class V to Class VII	2	20%	4	40%	3	20%	4	27%
VIII to Secondary Education		—		—	5	33%	2	13%
Higher Secondary Level		—		—	0	0%	0	0%

Table 4 shows that a large percentage of the survivors, i.e., 40% of the CG of Sukanya Home and 53% of the CG of Boisar Home are illiterate. But, the greatest percentage of survivors of the TG (70%) of Sukanya Home have primary level of education. It is also noticed here that in the Boisar Home, 33% of the TG and 13% of the CG have educational qualification ranging from Class VIII to Secondary level.

Table: 5 ORIGINAL PLACE

State/Country	Boisar				Sukanya			
	CG		TG		CG		TG	
	N	%	N	%	N	%	N	%
Maharashtra	6	40%	7	47%	0	0%	0	0%
Uttar Pradesh	1	6.7%	1	6.7%	0	0%	0	0%
Madhya Pradesh	1	6.7%	1	6.7%	0	0%	0	0%
West Bengal	1	6.7%	0	0%	3	30%	7	70%
Assam	1	6.7%	0	0%	0	0%	0	0%
Nepal	2	13%	0	0%	0	0%	0	0%
Bangladesh	3	20%	6	40%	7	70%	3	30%

It can be seen in the Table 5 that in Boisar Home, a large percentage (40% of CG and 47% of TG) of survivors' Original place is the state of Maharashtra of India. But the percentage of Bangladeshi girls are not lagging behind, a great percentage of (40% of TG) survivors are from Bangladesh. In case of Sukanya Home, it can be seen that 70% of the survivors from CG are Bangladeshi girls, whereas, 70% of the survivors from TG are from the State of West Bengal of India.

Table 6a: Percentages of Survivors of Sukanya Home according to their Age and Original Place

Age	CG				TG			
	West Bengal		Bangladesh		West Bengal		Bangladesh	
	N	%	N	%	N	%	N	%
12-14 yrs	2	20%	1	10%	2	20%	1	10%
15-17 yrs	1	10%	5	50%	5	50%	2	20%
18-20 yrs	0	0%	1	10%	0	0%	0	0%

Table 6a depicted that in case of Sukanya Home, the greatest percentage of (50%) survivors of CG of the age group of 15 to 17 years are from Bangladesh. But, the greatest percentage (50%) of the survivors of TG of the age group of 15 to 17 years are from West Bengal.

Table 6b: Percentages of Survivors of Boisar Home according to their Age and Original Place

Age	CG							TG			
	Original Place							Original Place			
	M	U.P.	M.P.	W.B.	Assam	N	B	M	U.P.	M.P.	B
12-14 yrs	0	0	0	0	0	0	0	0	0	0	0
15-17 yrs	4 27%	1 6.7%	1 6.7%	1 6.7%	1 6.7%	2 13%	0	4 27%	1 6.7%	1 6.7%	5 33%
18-20 yrs	2 13%	0	0	0	0	0	3 20%	3 20%	0	0	1 6.7%
Total	15							15			

M: Maharashtra, U.P.: Uttar Pradesh, M.P.: Madhya Pradesh, W B.: West Bengal, N: Nepal, B: Bangladesh.

Table 6b shows that, in the Boisar Home, 27% of the survivors from CG and 27% of the survivors from TG with the age group of 15 to 17 years are originally from the State of Maharashtra of India. But the highest percentages of survivors, i.e., 33% of the survivors from TG with the age group of 15 to 17 years are originally from Bangladesh. It is also noticeable that not only from Maharashtra or Bangladesh, the survivors of CG and TG with different age groups are originally from many other parts of India, like, Uttar Pradesh, Madhya Pradesh, West Bengal. Even, 13% of the survivors from CG with the age group of 15 to 17 years are originally from Nepal.

Table:7 Duration of Stay at the Site since the Survivor was Rescued :

Duration	Sukanya Home				Boisar Home			
	TG		CG		TG		CG	
	N		N		N		N	
1 month	0	-	0	-	1	6.7%	4	27%
2 months	2	20%	0	-	1	6.7%	3	20%
3months	0	-	0	-	1	6.7%	1	6.7%
4months	1	10%	1	10%	0	-	1	6.7%
5months	0	-	1	10%	0	-	0	-
6 months	0	-	0	-	0	-	1	6.7%
7 months	0	-	0	-	3	20%	0	-
8 months	1	10%	0	-	0	-	0	-
10 months	0	-	0	-	1	6.7%	0	-
11 months	0	-	0	-	1	6.7%	0	-
1 year	3	30%	2	20%	6	40%	5	33%
1 year 4 months	0	-	0	-	1	6.7%	0	-
1 yr 6 months	1	10%	2	20%	0	-	0	-
2 years	0	-	3	30%	0	-	0	-
3 years 6 months	1	10%	0	-	0	-	0	-
5 years	1	10%	1	10%	0	-	0	-

Though, in the Sukanya Home, 30% survivors from TG and 20% survivors from CG are staying for the last 1 year after being rescued (Table:7), but 30% survivors from CG are staying for the last 2 years after being rescued. In the Boisar Home, 40% survivors from TG and 33% survivors from CG are staying for the last 1 year after being rescued. It is also important to mention that, 27% of the survivors from CG have started to stay here only 1 month back.

Sukanya Home

Table:8A Showing Distribution of T scores of the Clinically Elevated Trauma related Symptoms of Each Survivor of CG-1 of the Sukanya Home

K--CG1	Anxiety	Depression	Anger	Posttraumatic Stress	Dissociation	Sexual Concerns
K--CG1-1	65	78	51	61	59	73
K--CG1-2	67	81	53	66	61	78
K--CG1-3	56	63	46	55	56	78
K--CG1-4	69	74	65	65	67	59
K--CG1-5	58	63	45	52	52	50
K--CG1-6	65	85	54	66	63	92
K--CG1-7	56	61	45	61	56	55
K--CG1-8	71	83	70	69	65	110
K--CG1-9	69	70	67	63	56	92
K--CG1-10	67	74	53	64	63	68

Table 8A shows the T-scores of the clinically elevated trauma related symptoms of the Control Group1 (CG1) of Sukanya Home. It is clear from this Table that most of the survivors from CG-1 have clinically elevated trauma related symptoms of Anxiety, Depression and Sexual Concern.

Table 8B shows the T-scores of the clinically elevated trauma related symptoms of the Treatment Group 1 (TG1) of Sukanya Home. It is clear from Table 8B that like the survivors of CG-1, most of the survivors from TG-1 have clinically elevated trauma related symptoms of Anxiety, Depression and Sexual Concern.

Table 8B: Showing Distribution of T scores and Mean of the Clinically Elevated Trauma related Symptoms of Each Survivor of TG-1 of the Sukanya Home

K--TG1	Anxiety	Depression	Anger	Posttraumatic Stress	Dissociation	Sexual Concerns
K- TG1-1	65	72	69	68	67	87
K- TG1-2	48	48	45	46	41	55
K- TG1-3	67	81	70	64	65	64
K- TG1-4	75	72	51	60	58	87
K- TG1-5	71	76	77	68	56	92
K- TG1-6	67	74	57	61	48	92
K- TG1-7	61	78	62	57	59	55
K- TG1-8	54	63	45	58	50	59
K- TG1-9	73	83	59	71	74	78
K- TG1-10	56	78	69	58	54	87

Table:8C Showing Mean of the T scores of Clinically Elevated Trauma related Symptoms of the TG-1 and CG-1 of Sukanya Home

	Anxiety	Depression	Anger	Post-traumatic Stress	Dissociation	Sexual Concern
TG-1 (Mean Scores)	63.7	72.5	60.4	61.1	57.2	75.6
CG-1 (Mean scores)	64.3	73.2	54.9	62.2	59.8	75.5

Table 8C mirrored the mean T scores of the TG-1 and CG-1 of Sukanya Home. In Sukanya Home, both the group's, i.e., TG-1's and CG-1's mean T scores of Depression and Sexual concerns are clinically significant. Moreover, the mean T scores of Anxiety and PTS of both the groups are suggestive of difficulty and may represent subclinical (but significant) symptomatology.

Boisar Home

Table:9A Showing Distribution of T scores and Mean of the Clinically Elevated Trauma related Symptoms of Each Survivor of CG-1of the Boisar Home

M--CG1	Anxiety	Depression	Anger	Posttraumatic Stress	Dissociation	Sexual Concerns
M-CG1-1	54	54	54	57	52	110
M-CG1-2	71	57	57	58	56	106
M-CG1-3	78	74	62	60	58	68
M-CG1-4	75	74	54	63	58	68
M-CG1-5	80	83	61	60	70	115
M-CG1-6	65	68	50	63	56	68
M-CG1-7	50	50	45	47	47	64
M-CG1-8	54	79	69	63	59	106
M-CG1-9	71	74	62	66	58	120
M-CG1-10	56	59	45	50	50	59
M-CG1-11	46	47	53	38	54	68
M-CG1-12	80	79	59	61	58	110
M-CG1-13	61	61	38	64	58	59
M-CG1-14	65	72	57	60	65	64
M-CG1-15	73	63	57	63	54	115

Table 9A shows the T-scores of the clinically elevated trauma related symptoms of the Control Group 1 (CG1) of Boisar Home. It is clear from Table 9A that most of the survivors from CG-1 have clinically elevated trauma related symptoms of Anxiety, Depression and Sexual Concern.

Table:9B Showing Distribution of T scores and Mean of the Clinically Elevated Trauma related Symptoms of Each Survivor of TG-1 of the Boisar Home

M--TG1	Anxiety	Depression	Anger	Posttraumatic Stress	Dissociation	Sexual Concerns
M-TG1-1	58	57	70	60	56	96
M-TG1-2	63	74	70	71	63	110
M-TG1-3	82	76	64	64	56	96
M-TG1-4	67	70	62	63	61	92
M-TG1-5	75	78	69	63	54	82
M-TG1-6	58	50	53	60	59	59
M-TG1-7	69	68	57	60	52	82
M-TG1-8	69	63	61	68	65	96
M-TG1-9	69	68	54	61	58	96
M-TG1-10	58	59	50	53	54	64
M-TG1-11	82	79	59	66	67	106
M-TG1-12	48	52	38	52	50	50
M-TG1-13	61	79	54	57	48	59
M-TG1-14	71	74	65	63	74	115
M-TG1-15	73	81	70	66	59	92

Table 9B shows the T-scores of the clinically elevated trauma related symptoms of the Treatment Gr-1 (TG1) of Boisar Home. It is clear from Table 9B that most of the survivors from TG-1 have clinically elevated trauma related symptoms of Anxiety, Depression and Sexual Concern.

Table:9C Showing Clinically Elevated Trauma symptoms related Mean of T scores of the TG-1 and CG-1 of Boisar Home

	Anxiety	Depression	Anger	Post-traumatic Stress	Dissociation	Sexual Concern
TG-1 (Mean Scores)	66.87	68.53	59.73	61.8	58.4	86.33
CG-1 (Mean Scores)	65.27	66.27	54.8	58.2	56.87	86.67

Table 9C mirrored the mean T scores of the TG-1 and CG-1 of Boisar Home. In Boisar Home, both the group's, i.e., TG-1's and CG-1's mean T scores of Anxiety, Depression and Sexual concerns are clinically significant. Moreover, the mean T scores of PTS of TG-1 is suggestive of difficulty and may represent subclinical (but significant) symptomatology

Table: 10 Age-wise distribution of Type of Survivors

Age-Range	Sukanya Home								Boisar Home							
	TG				CG				TG				CG			
	TS		SVS		TS		SVS		TS		SVS		TS		SVS	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
12 yrs - 14 yrs	1	10%	2	20%	1	10%	2	20%	0	-	0	-	0	-	0	-
15 yrs - 17 yrs	4	40%	3	30%	6	60%	0	-	11	73%	0	-	10	67%	0	-
18 yrs - 20 yrs	0	-	0	-	1	10%	0	-	4	27%	0	-	5	33%	0	-

TS: Trafficking Survivors, **SVS:** Sexual Violence Survivors

It can be seen from Table 10 that, in Sukanya Home, 60% trafficking survivors from CG and 40% trafficking survivors from TG belong to the age group of 15 to 17 years. And, 30% survivors of sexual violence from TG belong to the age group of 15 to 17 years.

In case of Boisar Home, there is no survivor of sexual violence. It is also noticed that, there is not a single survivor with the age group of 12 to 14 years. Here, it can be seen that majority of the trafficking survivors, i.e., 73% from the TG and 67% from the CG belong to the age group of 15 to 17 years.

Table 11: Duration of Exploitation

Duration	Sukanya Home				Boisar Home			
	CG		TG		CG		TG	
	N	%	N	%	N	%	N	%
6 yrs 6 months	-	-	1	10%	-	-	-	-
5 years	1	-	-	-	1	6.7%	-	-
3 years	-	-	-	-	-	-	1	6.7%
2 yrs 6 months	-	-	-	-	1	6.7%	-	-
2 years	3	30%	-	-	1	6.7%	1	6.7%
1 yr 10 months	-	-	-	-	2	13%	1	6.7%
1 yr 8 months	-	-	-	-	1	6.7%	-	-
1 yr 6 months	-	-	-	-	-	-	1	6.7%
1 yr 1 month	-	-	-	-	-	-	1	6.7%
1 year	2	20%	4	40%	1	6.7%	-	-
10 months	-	-	1	10%	-	-	-	-
9 months	-	-	-	-	2	13%	1	6.7%
8 months	-	-	-	-	-	-	2	13%
6 months	-	-	-	-	2	13%	3	20%
5 months	1	10%	-	-	-	-	2	13%
4 months	1	10%	1	10%	-	-	-	-
3 months	-	-	-	-	1	6.7%	1	6.7%
2 months	-	-	-	-	1	6.7%	1	6.7%
1 month	-	-	1	10%	1	6.7%	-	-
21 days	-	-	-	-	1	6.7%	-	-
5 days	-	-	1	10%	-	-	-	-

Table 11 shows that, in Sukanya Home, 40% of the survivors from TG had to stay in a condition of exploitation for at least 1 year, whereas, 30% of the survivors from CG had been in a condition of exploitation for 2 years. Interestingly, there is one survivor from TG, whose duration of exploitation is longest, i.e., 6 months 6 months.

It can be seen from Table 11 that, in Boisar Home, 20% survivors from TG had been in a condition of exploitation for 6 months. Here, one survivor from CG had the longest duration of exploitation of 5 years.

Table 12 Showing the correlation between Duration of Exploitation, Types of Victimization and the survivors' scores of six Symptoms of TSCC

		Correlations								
		Exploitation	Anxiety	Depression	Anger	PTS	Dissociation	Sexual Concern	TS_SVS	
Exploitation	Pearson Correlation	1								
	Sig. (2-tailed)									
	N	20								
Anxiety	Pearson Correlation	-.376	1							
	Sig. (2-tailed)	.103								
	N	20	20							
Depression	Pearson Correlation	-.157	.718**	1						
	Sig. (2-tailed)	.510	.000							
	N	20	20	20						
Anger	Pearson Correlation	.051	.531*	.585**	1					
	Sig. (2-tailed)	.830	.016	.007						
	N	20	20	20	20					
PTS	Pearson Correlation	-.268	.794**	.776**	.600**	1				
	Sig. (2-tailed)	.254	.000	.000	.005					
	N	20	20	20	20	20				
Dissociation	Pearson Correlation	-.261	.669**	.721**	.437	.812**	1			
	Sig. (2-tailed)	.267	.001	.000	.054	.000				
	N	20	20	20	20	20	20			
Sexual Concern	Pearson Correlation	-.046	.564**	.528*	.525*	.566**	.239	1		
	Sig. (2-tailed)	.848	.010	.017	.017	.009	.310			
	N	20	20	20	20	20	20	20		
TS_SVS	Pearson Correlation	.185	.075	.151	.172	.130	.007	.071	1	
	Sig. (2-tailed)	.436	.754	.525	.470	.584	.976	.765		
	N	20	20	20	20	20	20	20	20	20

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

From Table 12 it can be said that there is no significant correlation between the survivors' type of victimization and their duration of exploitation. It is also clear from this table that there is no significant correlation between the six symptoms of trauma and the survivors' duration of exploitation. Moreover, no significant correlation exists between the type of victimization and the six symptoms of trauma.

Table:13 Mean , S.D. and SE_D of the Trafficking Survivors and the Sexual Violence Survivors regarding Six Trauma Related Symptoms

Group Statistics					
		N	Mean	Std. Deviation	Std. Error Mean
Anxiety	TS	13	63.62	7.545	2.093
	SVS	7	64.71	6.993	2.643
Depression	TS	13	71.85	10.495	2.911
	SVS	7	74.71	6.824	2.579
Anger	TS	13	56.38	10.981	3.046
	SVS	7	60.00	9.256	3.498
PTS	TS	13	61.08	6.994	1.940
	SVS	7	62.71	4.461	1.686
Dissociation	TS	13	58.46	6.960	1.930
	SVS	7	58.57	9.235	3.491
Sexual Concern	TS	13	74.69	18.692	5.184
	SVS	7	77.14	13.692	5.175

TS: Trafficking Survivor, SVS: Sexual Violence Survivor

Very interesting feature of Table 13 is that, except the mean T score of Dissociation, the mean T-scores of all other five symptoms of Trauma of the survivors of sexual violence are higher than those of the mean T-scores of trafficking survivors. The sexual violence survivors' mean T-scores of Anger, Depression and Sexual Concern are much higher than the trafficking survivors' mean T-scores of these three Trauma symptoms.

Table 14 shows the significance of difference between the TS and SVS regarding the Six Trauma Symptoms

		Levene's Test for				t-test for Equality of Means			95% Confidence Interval of	
		Equality of Variances		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	the Difference	
		F	Sig.						Lower	Upper
Anxiety	EVA	.060	.810	-.318	18	.754	-1.099	3.453	-8.353	6.156
	EVNA			-.326	13.271	.750	-1.099	3.371	-8.367	6.169
Depression	EVA	1.247	.279	-.649	18	.525	-2.868	4.422	-12.157	6.421
	EVNA			-.737	17.125	.471	-2.868	3.889	-11.069	5.333
Anger	EVA	.743	.400	-.739	18	.470	-3.615	4.893	-13.896	6.665
	EVNA			-.779	14.405	.448	-3.615	4.638	-13.537	6.307
PTS	EVA	1.731	.205	-.558	18	.584	-1.637	2.937	-7.807	4.533
	EVNA			-.637	17.267	.532	-1.637	2.570	-7.054	3.779
Dissociation	EVA	1.453	.244	-.030	18	.976	-.110	3.653	-7.785	7.565
	EVNA			-.028	9.774	.979	-.110	3.989	-9.025	8.805
Sexual Concern	EVA	1.067	.315	-.304	18	.765	-2.451	8.058	-19.379	14.478
	EVNA			-.335	16.019	.742	-2.451	7.325	-17.978	13.077

The t-values shown in the **Table 14** depicted that, the difference between the survivors of trafficking and the survivors of sexual violence regarding their mean T-scores of the Six Trauma Symptoms are not significant.

Table 15 is showing the examination of each of the eight critical items along with their percentage endorsed by the survivors of the TGs and CGs of both the sites, that is, the Boisar Home and the Sukanya Home. These items, which examine potential self injury, suicidal tendency, desire to harm others, expectations of sexual maltreatment, involvement in fights, fears of men, fears of women, and fears of being killed, suggest problems or issues that may require immediate clinical attention. It is evident from this table that, most of these items are endorsed by higher percentage of nonzero responses of the respondents irrespective of the sites (except the percentage of endorsement (50%) to the item: 'Feeling afraid somebody will kill me' by the TG of Sukanya Home. This table also shows a very high percentage of nonzero response to the item no. 34- 'Not trusting people because they might want sex', item no. 24 'Feeling scared of men' and item no.25- 'Feeling scared of women' by the survivors of trafficking and sexual violence, irrespective of the sites. These percentages indicate losing complete trust on people (men and women too), and being in a feeling of intense threat to be sexually abused. The high percentage of responses to the item no. 20- 'Wanting

to hurt myself’ and the item no.36- ‘Getting into fights’ indicates higher tendency to self harm and high aggressive mode of behaviour.

Table: 15 TSCC Critical Items and the Percentage endorsing above 0 (i.e., more often than never)

	Critical Items:	Boisar Home				Sukanya Home			
		TG		CG		TG		CG	
		N	%	N	%	N	%	N	%
20.	Wanting to hurt myself.	12	80%	12	80%	9	90%	7	70%
21.	Wanting to hurt other people.	14	93%	10	67%	6	60%	6	60%
24.	Feeling scared of men.	12	80%	13	87%	8	80%	9	90%
25.	Feeling scared of women.	11	73%	10	67%	8	80%	7	70%
34.	Not trusting people because they might want sex.	14	93%	13	87%	9	90%	10	100%
36.	Getting into fights.	12	80%	12	80%	8	80%	8	80%
50.	Feeling afraid somebody will kill me.	11	73%	9	60%	5	50%	7	70%
52.	Wanting to kill myself.	12	80%	11	73%	8	80%	7	70%

Note: Item numbers are from the full, 54-item version of the TSCC.

Description of the Two Sites:

In the month of August’15, the total number of girls in the Boisar Home was 100, whereas, in Sukanya Home, the total number was 101. In both of the Homes, girls are taking part in different types of vocational activities.

Table 16: Description of Two Sites:

	Mumbai Site (Boisar Home)	Kolkata Site (Sukanya Home)
Total Number of Girls at Shelter	100	101
Number of Girls Participating in Vocational Training	90	85
Number of Girls in Sleeping Quarter	?	?
Number of Girls Who are Victims of Trafficking	95 (mixed)	35 (mixed)
Number of Staff Working at Shelter as Full Time Staff	14	12
Number of Staff Working at Shelter as Part Time Staff	7	4
Number of Volunteer Staff	1	2(counselors)
Number of Professionals (e.g. doctors, nurse, counselors) Who Visit Site Regularly	3(1 doctor, 1 nurse 1 counsellor)	1 doctor
Number of Girls Participating in Counseling	*4/day	** No regular session held
Duration of Counseling per Session	*30mins.	* * note below
Frequency of Vocational Training per Week	Everyday	Everyday
Existence of assigned job at the shelter	Yes	Yes
Existence of Peer Support Group	0	1
Existence of Mentor	1	1
Existence of Peer Mentor	0	0
Frequency of Outing (Going Out of Shelter)	0	3 times (yearly)

Section : II

Quantitative Analysis of the Data

Table 1A: t- statistics showing the significance of difference between TG-2 and CG-2 of the Sukanya Home Survivors regarding the six symptoms of Trauma.

Independent Samples Test

Kolkata-TG2 Vs CG2	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
K_ANXIETY 2	2.875	17	.011**	8.567	2.980	2.280	14.853
K_DEPRESSION2	2.954	17	.009**	11.556	3.912	3.302	19.809
K_ANGER2	.943	17	.359	3.667	3.889	-4.539	11.872
K_PTS2	3.170	17	.006**	9.622	3.035	3.218	16.026
K_DISSO2	1.416	17	.175	4.722	3.336	-2.316	11.760
K_SEXCON C2	.550	17	.590	3.689	6.709	-10.466	17.844

** Significant at .01 level

Table 1A indicates that, in case of the Sukanya Home survivors, the symptoms of trauma like anxiety, depression and post-traumatic stress of the treatment group (TG-2) have reduced significantly as compared to the control group (CG-2) after getting three months of Dance Movement Therapy. All of these three t- values were found significant at .01 level. On the other three symptoms of trauma as measured by the TSCC scale, no mean difference between the TG-2 and CG-2 was found significant.

Table 1B:t- statistics showing the significance of difference between TG-2 and CG-2 of the Boisar Home regarding the six symptoms of Trauma.

Independent Samples Test							
t-test for Equality of Means							
M-TG2 Vs M-CG2	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
M_ ANXIETY2	.906	25	.373	4.385	4.838	-5.580	14.350
M_ DEPRESSION2	.741	25	.466	3.225	4.353	-5.739	12.190
M_ ANGER2	.335	25	.741	1.165	3.480	-6.002	8.331
M_ PTS2	.798	25	.433	2.440	3.059	-3.860	8.739
M_ DISSO2	1.154	25	.260	2.709	2.348	-2.128	7.545
M_ SEXCONC2	.940	25	.356	8.170	8.696	-9.739	26.080

Table:1B revealed that no significant difference was found between the six trauma symptoms of the treatment group (TG-2) and control group (CG-2) of the survivors of Boisar Home after three months of DMT intervention.

The analysis of the Mid-DMT intervention data facilitated verification of the **Hypothesis no.1**.

Hypothesis 1 proposed that **TG-2** will differ significantly from **CG-2** with respect to each of the six domains of TSCC **after three months** of DMT Intervention.

Hypothesis 1 was accepted for 3 symptoms of trauma (as measured by the TSCC scale): Anxiety, Depression and Post- Traumatic Stress in case of Sukanya Home- Kolkata. But, it was rejected for Anger, Dissociation and Sexual Concern symptoms of the TSCC in case of the Kolkata site. Hypothesis 1 was also rejected for any of the six symptoms of TSCC in case of Mumbai site - Boisar Home. Overall, it can be stated that **Hypothesis 1 is partially accepted**.

Table 2A indicates that, in case of the Sukanya Home survivors, all six symptoms of trauma (TSCC) like anxiety, depression, anger, post-traumatic stress, dissociation and sexual concern of the treatment group (TG-3) have reduced significantly as compared to the control group (CG-3) after getting six months of Dance Movement Therapy. All of these six t- values were found significant at .01 level.

Table -2A: t- statistics showing the significance of difference between TG-3 and CG-3 of the Sukanya Home regarding the six symptoms of Trauma

Sukanya Home K_TG3 Vs K_CG3	Independent Samples Test						
	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Lower						Upper	
Anxiety3	3.353	17	.004**	11.778	3.513	4.367	19.189
Depression3	5.023	17	.000**	18.500	3.683	10.729	26.271
Anger3	2.719	17	.015**	9.889	3.636	2.217	17.561
PTS3	6.541	17	.000**	15.356	2.348	10.402	20.309
Dissociation3	3.606	17	.002**	10.278	2.850	4.265	16.291
SexCon3	2.492	17	.023**	16.100	6.460	2.470	29.730

**** Significant at .01 level**

Table: 2B : t- statistics showing the significance of difference between TG-3 and CG-3 of the Boisar Home Survivors regarding the six symptoms of Trauma

Boisar Home M_TG3 Vs M_CG3	Independent Samples Test						
	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Lower						Upper	
Anxiety3	2.281	22	.033*	10.750	4.712	.977	20.523
Depression3	2.448	22	.023*	10.333	4.220	1.581	19.086
Anger3	1.850	22	.078	6.417	3.468	-.776	13.610
PTS3	2.949	22	.007**	9.083	3.080	2.697	15.470
Dissociation3	4.234	22	.000**	8.667	2.047	4.421	12.912
SexCon3	1.900	22	.071	16.083	8.465	-1.472	33.639

*** Significant at .05 level ** Significant at .01 level**

It is clear from the **Table 2B** that, in case of the Boisar Home survivors, the symptoms of trauma like anxiety, depression, post-traumatic stress and dissociation of the treatment group (TG-3) have reduced significantly as compared to the control group (CG-3) after getting six months of Dance Movement Therapy. Anxiety and depression related t- values are found significant at .05 level but PTS and dissociation related t-values are found significant at .01 level. On the other two symptoms of trauma as measured by the TSCC scale, no mean difference between the TG-3 and CG-3 was found significant.

The analysis of the Post-DMT intervention data facilitated verification of the **Hypothesis no.2**.

Hypothesis 2 proposed that **TG-3** will differ significantly from **CG-3** with respect to each of the six domains of TSCC **after six months** of DMT Intervention.

Hypothesis 2 was accepted for all of the six symptoms of trauma (as measured by the TSCC scale): Anxiety, Depression, Anger, PTS, Dissociation and Sexual Concern in case of the Sukanya Home-Kolkata. Hypothesis 2 was also accepted for four symptoms of trauma like- Anxiety, Depression, PTS and Sexual Concern in case of the Boisar Home- Mumbai. But, it was rejected for Anger, and Sexual Concern symptoms of the TSCC in case of the Mumbai site -Boisar Home. Overall, it can be stated that **Hypothesis 2 is mostly accepted**.

Table 3A: t- statistics showing the significance of difference between the TG-1 and TG-2 of the Sukanya Home Survivors regarding the six symptoms of Trauma.

Paired Samples Test									
Sukanya Home Kolkata Site	Paired Differences					t	df	Sig. (2-tailed)	
	K-TG1 Vs- K_TG2	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
K_TG1_ANXIETY - K_TG2_ANXIETY	9.600	5.420	1.714	5.723	13.477	5.601	9	.000**	
K_TG1_DEPRESSION - K_TG2_DEPRESSION	12.500	4.905	1.551	8.991	16.009	8.059	9	.000**	
K_TG1_ANGER - K_TG2_ANGER	10.400	8.030	2.539	4.655	16.145	4.095	9	.003**	
K_TG1_PTS - K_TG2_PTS	10.500	4.089	1.293	7.575	13.425	8.120	9	.000**	
K_TG1 DISSOCIATION - K_TG2 DISSOCIATION	5.700	3.945	1.248	2.878	8.522	4.569	9	.001**	
K_TG1_SEXUAL CONCERN- K_TG2_SEXUAL CONCERN	10.400	5.719	1.809	6.309	14.491	5.750	9	.000**	

** Significant at .01 level

According to **Table 3A**, the mean scores of TG-2 of the Sukanya Home survivors have shown significant improvement in all the six symptoms of trauma, i.e., Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern, as compared to the mean scores of six such trauma symptoms of TG-1, after three months of DMT intervention. All the six t-values, as depicted in the Table, are found significant at the .01 level

Table 3B : t- statistics showing the significance of difference between the TG-1 and TG-2 of the Boisar Home Survivors regarding the six symptoms of Trauma.

Mumbai Site Boisar Home		Paired Samples Test				t	df	Sig. (2-tailed)
		Paired Differences						
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference			
Lower	Upper							
M_TG1_Vs - M_TG2								
M_TG1_ANXIETY - M_TG2_ANXIETY	7.429	4.702	1.257	4.714	10.143	5.911	13	.000**
M_TG1_DEPRESSION - M_TG2_DEPRESSION	7.714	4.462	1.193	5.138	10.291	6.468	13	.000**
M_TG1_ANGER - M_TG2_ANGER	6.857	2.931	.783	5.165	8.550	8.752	13	.000**
M_TG1_PTS - M_TG2_PTS	6.786	2.359	.631	5.424	8.148	10.762	13	.000**
M_TG1 DISSOCIATION - M_TG2 DISSOCIATION	6.143	2.179	.582	4.885	7.401	10.549	13	.000**
M_TG1_SEXUAL CONCERN - M_TG2_SEXUAL CONCERN	9.714	5.663	1.513	6.445	12.984	6.419	13	.000**

** Significant at .01 level

According to **Table 3B**, the mean scores of TG-2 of the Boisar Home survivors have shown significant improvement in all the six symptoms of trauma, i.e., Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern, as compared to the mean scores of six such trauma symptoms of TG-1, after three months of DMT intervention. All the six t-values, as depicted in the Table, are found significant at the .01 level

The analysis of the Mid-DMT intervention data facilitated verification of the **Hypothesis no.3**.

Hypothesis 3 proposed that **TG-1** will differ significantly from **TG-2** with respect to each of the six domains of TSCC **after three months** of DMT intervention.

Hypothesis 3 was highly accepted for all of the 6 symptom of Trauma: Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern of the TSCC scale in both the sites, i.e., in the Kolkata site and in the Mumbai site.

Table 4A: t- statistics showing the significance of difference between the CG-1 and CG-2 of the Sukanya Home Survivors regarding the six symptoms of Trauma.

Paired Samples Test								
SUKANYA HOME K.CG1 Vs K.CG2	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
K.CG1_ANXIETY K.CG2 -ANXIETY	1.333	2.000	.667	-.204	2.871	2.000	8	.081
K.CG1_DEPRESSION – K.CG2_DEPRESSION	1.556	2.555	.852	-.408	3.519	1.827	8	.105
K.CG1_ANGER – K.CG2_ANGER	1.444	2.920	.973	-.800	3.689	1.484	8	.176
K.CG1_PTS – K.CG2_PTS	1.778	2.587	.862	-.211	3.767	2.061	8	.073
K.CG1_DISSOCIATION – K.CG2_DISSOCIATION	3.222	4.604	1.535	-.317	6.761	2.100	8	.069
K.CG1_SEXCONCERN K.CG2_SEXCONCERN	7.444	14.604	4.868	-3.781	18.670	1.529	8	.165

** Significant at .01 level

Table 4A revealed that, in the Sukanya Home, after three months from the Pre-DMT Trauma assessment time, none of the six trauma symptoms of the CG-2 survivors have reduced at a significant level as compared to the intensity of trauma of the survivors of CG-1. The t-values of the six trauma symptoms indicated that there is no significant difference between the CG-1 mean scores and CG-2 mean scores of the six trauma symptoms of the survivors of Sukanya Home.

Table 4B t- statistics showing the significance of difference between the CG-1 and CG-2 of the Boisar Home Survivors regarding the six symptoms of Trauma.

Paired Samples Test								
BOISAR HOME M_CG1 Vs M_CG2	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
M_CG1_ANXIETY M_CG2 -ANXIETY	.769	7.014	1.945	-3.469	5.008	.395	12	.699
M_CG1_DEPRESSION – M_CG2_DEPRESSION	1.692	5.921	1.642	-1.886	5.271	1.030	12	.323
M_CG1_ANGER – M_CG2_ANGER	1.077	3.707	1.028	-1.163	3.317	1.047	12	.316
M_CG1_PTS – M_CG2_PTS	.692	5.040	1.398	-2.353	3.738	.495	12	.629
M_CG1_DISSOCIATION – M_CG2_DISSOCIATION	1.231	2.127	.590	-.055	2.516	2.086	12	.059
M_CG1_SEX CONCERN M_CG2_SEXCONCERN	2.231	5.464	1.516	-1.071	5.533	1.472	12	.167

** Significant at .01 level

Table 4B mirrored that, in the Boisar Home, after three months from the Pre-DMT Trauma assessment time, none of the six trauma symptoms of the CG-2 survivors have reduced at a significant level as compared to the intensity of trauma symptoms of the CG-1 survivors. The t-values indicated that there is no significant difference between the CG-1 mean scores and CG-2 mean scores of the six trauma symptoms of the survivors of Boisar Home.

The analysis of the Mid-DMT intervention data facilitated the verification of **Hypothesis no.4**.

Hypothesis 4 proposed that **CG-1** will differ significantly from **CG-2** with respect to each of the six domains of TSCC **after three months** of DMT intervention.

Hypothesis 4 was rejected for all the 6 symptom of Trauma: Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern of the TSCC scale in both the sites, i.e., in the Kolkata site and in the Mumbai site.

Table 5A: t- statistics showing the significance of difference between the TG-2 and TG-3 of the Sukanya Home Survivors regarding the six symptoms of Trauma.

Paired Samples Test									
Sukanya Home	Paired Differences					t	df	Sig. (2-tailed)	
	K_TG2 Vs K_TG3	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
K_TG2_ANXIETY - K_TG3_ANXIETY	5.100	2.331	.737	3.433	6.767	6.919	9	.000**	
K_TG2_DEPRESSION - K_TG3_DEPRESSION	6.500	3.028	.957	4.334	8.666	6.789	9	.000**	
K_TG2_ANGER - K_TG3_ANGER	5.000	3.162	1.000	2.738	7.262	5.000	9	.001**	
K_TG2_PTS - K_TG3_PTS	5.400	3.273	1.035	3.059	7.741	5.218	9	.001**	
K_TG2 DISSOCIATION - K_TG3 DISSOCIATION	5.000	2.667	.843	3.092	6.908	5.929	9	.000**	
K_TG2 SEXUAL CONCERN - K_TG3 SEXUAL CONCERN	8.300	5.755	1.820	4.183	12.417	4.561	9	.001**	

** Significant at .01 level

According to **Table 5A**, the mean scores of TG-3 of the Sukanya Home survivors have shown significant improvement in all the six symptoms of trauma, i.e., Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern, as compared to the mean scores of six such trauma symptoms of TG-2, after six months of DMT intervention. All the six t-values, as depicted in the Table, are found significant at the .01 level.

According to **Table 5B**, the mean scores of TG-3 of the Boisar Home survivors have shown significant improvement in all the six symptoms of trauma, i.e., Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern, as compared to the mean scores of six such trauma symptoms of TG-2, after six months of DMT intervention. All the six t-values, as depicted in the Table, are found significant at the .01 level

Table 5B: t- statistics showing the significance of difference between the TG-2 and TG-3 of the Boisar Home Survivors regarding the six symptoms of Trauma.

Paired Samples Test									
Boisar Home	Paired Differences					t	df	Sig. (2-tailed)	
	M_TG2 Vs M_TG3	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
M_TG2_ANXIETY - M_TG3_ANXIETY	4.833	2.406	.694	3.305	6.362	6.959	11	.000**	
M_TG2_DEPRESSION - M_TG3_DEPRESSION	4.667	2.902	.838	2.823	6.511	5.570	11	.000**	
M_TG2_ANGER - M_TG3_ANGER	5.500	3.000	.866	3.594	7.406	6.351	11	.000**	
M_TG2_PTS - M_TG3_PTS	7.833	1.899	.548	6.627	9.040	14.290	11	.000**	
M_TG2_DISSOCIATION - M_TG3_DISSOCIATION	5.250	3.079	.889	3.294	7.206	5.908	11	.000**	
M_TG2_SEXUAL CONCERN - M_TG3_SEXUAL CONCERN	9.417	5.664	1.635	5.818	13.016	5.759	11	.000**	

** Significant at .01 level

The analysis of the Post-DMT intervention data facilitated verification of the **Hypothesis no.5**.

Hypothesis 5 proposed that **TG-2** will differ significantly from **TG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.

Hypothesis 5 was highly accepted for all of the 6 symptom of Trauma: Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern of the TSCC scale in both the sites, i.e., in the Kolkata site and in the Mumbai site.

Table 6A: t- statistics showing the significance of difference between the CG-2 and CG-3 of the Sukanya Home Survivors regarding the six symptoms of Trauma.

Paired Samples Test									
Sukanya Home	Paired Differences					t	df	Sig. (2-tailed)	
	K_CG2 Vs K_CG3	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
K_CG2_ANXIETY K_CG3 -ANXIETY	1.889	5.207	1.736	-2.113	5.891	1.088	8	.308	
K_CG2_DEPRESSION – K_CG3_DEPRESSION	-.444	2.651	.884	-2.482	1.593	-.503	8	.629	
K_CG2_ANGER – K-CG3_ANGER	-1.222	1.922	.641	-2.700	.255	-1.908	8	.093	
K_CG2_PTS – K-CG3_PTS	-.333	1.500	.500	-1.486	.820	-.667	8	.524	
K_CG2_DISSOCIATION – K-CG3_DISSOCIATION	-.556	3.046	1.015	-2.897	1.786	-.547	8	.599	
K-CG2_SEXCONCERN K_CG3_SEX CONCERN	-4.111	6.470	2.157	-9.084	.862	-1.906	8	.093	

** Significant at .01 level

Table 6A revealed that, in the Sukanya Home, after six months from the Pre-DMT Trauma assessment time, none of the six trauma symptoms of the CG-3 survivors have reduced at a significant level as compared to the intensity of trauma of the survivors of CG-2. The t-values of the six trauma symptoms indicated that there is no significant difference between the CG-2 mean scores and CG-3 mean scores of the six trauma symptoms of the survivors of Sukanya Home.

Table 6B mirrored that, in the Boisar Home, after six months from the Pre-DMT Trauma assessment time, none of the six trauma symptoms of the CG-3 survivors have reduced at a significant level as compared to the intensity of trauma symptoms of the CG-2 survivors. The t-values indicated that there is no significant difference between the CG-2 mean scores and CG-3 mean scores of the six trauma symptoms of the survivors of Boisar Home.

Table 6B: t- statistics showing the significance of difference between the CG-2 and CG-3 of the Boisar Home Survivors regarding the six symptoms of Trauma.

Paired Samples Test								
Boisar Home	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
M_CG2 Vs M_CG3								
M_CG2_ANXIETY M_CG3 -ANXIETY	-1.250	2.864	.827	-3.070	.570	-1.512	11	.159
M_CG2_DEPRESSION – M_CG3_DEPRESSION	-.833	3.326	.960	-2.946	1.280	-.868	11	.404
M_CG2_ANGER – M-CG3_ANGER	-.583	2.712	.783	-2.307	1.140	-.745	11	.472
M_CG2_PTS – M-CG3_PTS	.417	2.746	.793	-1.328	2.161	.526	11	.610
M_CG2 DISSOCIATION – M-CG3 DISSOCIATION	-.083	1.832	.529	-1.247	1.081	-.158	11	.878
M-CG2_SEXCONCERN M_CG3_SEX CONCERN	-.750	3.494	1.008	-2.970	1.470	-.744	11	.473

** Significant at .01 level

The analysis of the Post-DMT intervention data facilitated the verification of **Hypothesis no.6**.

Hypothesis 6 proposed that **CG-2** will differ significantly from **CG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.

Hypothesis 6 was rejected for all of the 6 symptoms of Trauma: Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern of the TSCC scale in both the sites, i.e., in the Kolkata site and in the Mumbai site.

Table 7A: t- statistics showing the significance of difference between the TG-1 and TG-3 of the Sukanya Home Survivors regarding the six symptoms of Trauma.

Paired Samples Test									
Sukanya Home	Paired Differences					t	df	Sig. (2-tailed)	
	K_TG1 Vs K_TG3	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
K_TG1_ANXIETY - K_TG3_ANXIETY	14.700	5.870	1.856	10.501	18.899	7.919	9	.000**	
K_TG1_DEPRESSION - K_TG3_DEPRESSION	19.000	7.134	2.256	13.897	24.103	8.423	9	.000**	
K_TG1_ANGER - K_TG3_ANGER	15.400	9.180	2.903	8.833	21.967	5.305	9	.000**	
K_TG1_PTS - K_TG3_PTS	15.900	4.202	1.329	12.894	18.906	11.966	9	.000**	
K_TG1_DISSOCIATION - K_TG3_DISSOCIATION	10.700	4.832	1.528	7.244	14.156	7.003	9	.000**	
K_TG1_SEXUAL CONCERN - K_TG3_SEXUAL CONCERN	18.700	10.573	3.343	11.137	26.263	5.593	9	.000**	

** Significant at .01 level

According to **Table 7A**, the mean scores of TG-3 of the Sukanya Home survivors have shown significant improvement in all the six symptoms of trauma, i.e., Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern, as compared to the mean scores of six such trauma symptoms of TG-1, after six months of DMT intervention. All the six t-values, as depicted in the Table, are found significant at the .01 level.

According to **Table 7B**, the mean scores of TG-3 of the Boisar Home survivors have shown significant improvement in all the six symptoms of trauma, i.e., Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern, as compared to the mean scores of six such trauma symptoms of TG-1, after six months of DMT intervention. All the six t-values, as depicted in the Table, are found significant at the .01 level

Table7B: t- statistics showing the significance of difference between the TG-1 and TG-3 of the Boisar Home Survivors regarding the six symptoms of Trauma.

Paired Samples Test									
Boisar Home	Paired Differences					t	df	Sig. (2-tailed)	
	M_TG1 Vs M_TG3	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
M_TG1_ANXIETY - M_TG3_ANXIETY	13.083	4.757	1.373	10.061	16.106	9.527	11	.000**	
M_TG1_DEPRESSION - M_TG3_DEPRESSION	12.833	4.687	1.353	9.855	15.811	9.485	11	.000**	
M_TG1_ANGER - M_TG3_ANGER	12.583	4.981	1.438	9.419	15.748	8.751	11	.000**	
M_TG1_PTS -M_TG3_PTS	14.750	3.049	.880	12.813	16.687	16.759	11	.000**	
M_TG1_DISSOCIATION - M_TG3_DISSOCIATION	11.917	3.825	1.104	9.487	14.347	10.793	11	.000**	
M_TG1_SEXUAL CONCERN- M_TG3_SEXUAL CONCERN	20.417	9.453	2.729	14.411	26.423	7.482	11	.000**	

** Significant at .01 level

The analysis of the Post-DMT intervention data facilitated verification of the **Hypothesis no.7.**

Hypothesis 7 proposed that **TG-1** will differ significantly from **TG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.

Hypothesis 7 was highly accepted for all of the 6 symptom of Trauma: Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern of the TSCC scale in both the sites, i.e., in the Kolkata site and in the Mumbai site.

Table 8A: t- statistics showing the significance of difference between the CG-1 and CG-3 of the Sukanya Home Survivors regarding the six symptoms of Trauma.

Paired Samples Test								
Sukanya Home K_CG1 Vs K_CG3	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
K_CG1_ANXIETY K_CG3 -ANXIETY	3.222	6.629	2.210	-1.873	8.318	1.458	8	.183
K_CG1_DEPRESSION – K_CG3_DEPRESSION	1.111	1.764	.588	-.245	2.467	1.890	8	.095
K_CG1_ANGER – K-CG3_ANGER	.222	2.587	.862	-1.767	2.211	.258	8	.803
K_CG1_PTS – K-CG3_PTS	1.333	2.000	.667	-.204	2.871	2.000	8	.081
K_CG1_DISSOCIATION – K-CG3_DISSOCIATION	2.667	4.873	1.624	-1.079	6.413	1.642	8	.139
K-CG1_SEXCONCERN K_CG3_SEX CONCERN	3.333	9.566	3.189	-4.019	10.686	1.045	8	.326

* Significant at .05 level ** Significant at .01 level

Table 8A showed that, in the Sukanya Home, after six months from the Pre-DMT Trauma assessment time, none of the six trauma symptoms of the CG-3 survivors have reduced at a significant level as compared to the intensity of trauma of the survivors of CG-1. The t-values of the six trauma symptoms indicated that there is no significant difference between the CG-1 mean scores and CG-3 mean scores of the six trauma symptoms of the survivors of Sukanya Home.

Table 8B mirrored that, in the Boisar Home, after six months from the Pre-DMT Trauma assessment time, none of the six trauma symptoms of the CG-3 survivors have reduced at a significant level as compared to the intensity of trauma symptoms of the CG-1 survivors. The t-values indicated that there is no significant difference between the CG-1 mean scores and CG-3 mean scores of the six trauma symptoms of the survivors of Boisar Home.

Table 8B: t- statistics showing the significance of difference between the CG-1 and CG-3 of the Boisar Home Survivors regarding the six symptoms of Trauma.

Paired Samples Test								
Boisar Home M_CG1 Vs M_CG3	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
M_CG1_ANXIETY M_CG3 -ANXIETY	.167	6.408	1.850	-3.905	4.238	.090	11	.930
M_CG1_DEPRESSION – M_CG3_DEPRESSION	1.750	6.426	1.855	-2.333	5.833	.943	11	.366
M_CG1_ANGER – M-CG3_ANGER	.917	3.704	1.069	-1.437	3.270	.857	11	.410
M_CG1_PTS – M-CG3_PTS	1.583	4.033	1.164	-.979	4.146	1.360	11	.201
M_CG1_DISSOCIATION – M-CG3_DISSOCIATION	1.083	1.832	.529	-.081	2.247	2.049	11	.065
M-CG1_SEXCONCERN M_CG3_SEX CONCERN	2.083	6.708	1.936	-2.178	6.345	1.076	11	.305

* Significant at .05 level ** Significant at .01 level

The analysis of the Post-DMT intervention data facilitated the verification of **Hypothesis no.8.**

Hypothesis 8 proposed that **CG-1** will differ significantly from **CG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.

Hypothesis 8 was rejected for all of the 6 symptoms of Trauma: Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern of the TSCC scale in both the sites, i.e., in the Kolkata site and in the Mumbai site.

Table 9: t- statistics showing the significance of difference between the TG-2 of Kolkata Site survivors and TG-2 of Mumbai Site Survivors regarding the six symptoms of Trauma

Independent Samples Test

Treatment Groups	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Sukanya Vs Boisar K-TG2 Vs M-TG2						Lower	Upper
ANXIETY2	-1.357	22	.188	-4.900	3.610	-12.388	2.588
DEPRESSION2	.019	22	.985	.071	3.820	-7.851	7.994
ANGER2	-.715	22	.482	-2.143	2.996	-8.356	4.070
PTS2	-1.544	22	.137	-4.114	2.665	-9.641	1.412
DISSOCIATION2	-.242	22	.811	-.714	2.953	-6.838	5.409
SEXUAL CONCERN 2	-1.636	22	.116	-11.014	6.734	-24.980	2.952

* Significant at .05 level ** Significant at .01 level

While comparing TG-2 of the Kolkata Site with TG-2 of the Mumbai Site after three months of DMT intervention, (**Table 9**) it is found that the mean scores of the six trauma symptoms of the survivors of Kolkata site did not differ significantly from the mean scores of that of the Mumbai Site survivors. The t-values of the six trauma symptoms indicated that there is no significant difference between the Kolkata Site TG-2 survivors' and Mumbai Site TG-2 survivors' intensity of trauma symptoms.

The analysis of the Mid-DMT intervention data facilitated the verification of **Hypothesis no.9**.

Hypothesis 9 proposed that the **Mumbai-TG-2** will differ significantly from the **Kolkata-TG-2** with respect to each of the six domains of TSCC **after three months** of DMT intervention.

Hypothesis 9 was rejected for all the 6 symptom of Trauma: Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern of the TSCC scale of both the groups, i.e., TG-2 of the Kolkata site and TG-2 of the Mumbai site.

Table 10: t- statistics showing the significance of difference between the CG-2 of Kolkata Site and CG-2 of Mumbai Site regarding the six symptoms of Trauma

Independent Samples Test

Control Groups	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Sukanya Vs Boisar K-CG2 Vs M-CG2						Lower	Upper
ANXIETY2	-.135	20	.894	-.718	5.299	-11.772	10.336
DEPRESSION2	1.715	20	.102	8.402	4.898	-1.816	18.619
ANGER2	.081	20	.937	.359	4.451	-8.925	9.643
PTS2	.844	20	.409	3.068	3.637	-4.519	10.656
DISSOCIATION2	.504	20	.620	1.299	2.577	-4.077	6.675
SEXUAL CONCERN2	-1.556	20	.135	-15.496	9.958	-36.268	5.277

* Significant at .05 level ** Significant at .01 level

Table 10 indicated that the mean scores of the six trauma symptoms of Kolkata site CG-2 survivors did not differ significantly from the mean scores of that of the Mumbai Site CG-2 survivors. The t-values revealed that there is no significant difference between the Kolkata Site CG-2 and Mumbai Site CG-2 survivors regarding the TSCC trauma symptoms after three months from the time of Pre-DMT Trauma assessment.

The analysis of the Mid-DMT intervention data facilitated the verification of **Hypothesis no.10**.

Hypothesis 10 proposed that **Mumbai-CG-2** will differ significantly from the **Kolkata-CG-2** with respect to each of the six domains of TSCC **after three months** of DMT intervention.

Hypothesis 10 was rejected for all the 6 symptom of Trauma: Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern of the TSCC scale for both the groups, i.e., the CG-2 of the Kolkata site and CG-2 of the Mumbai site

Table 11: : t- statistics showing the significance of difference between the TG-3 of Kolkata Site survivors and TG-3 of Mumbai Site Survivors regarding the six symptoms of Trauma

Independent Samples Test

K_TG3 Vs M_TG3	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Anxiety3	-1.491	20	.152	-3.500	2.347	-8.396	1.396
Depression 3	.213	20	.833	.583	2.734	-5.120	6.286
Anger3	-.882	20	.388	-1.833	2.079	-6.171	2.504
PTS3	-.788	20	.440	-1.550	1.966	-5.652	2.552
Dissociatio n3	-.044	20	.965	-.083	1.894	-4.035	3.868
SexCon3	-2.151	20	.044*	-9.183	4.269	-18.088	-.279

* Significant at .05 level ** Significant at .01 level

While comparing TG-3 of the Kolkata Site with TG-3 of the Mumbai Site after six months of DMT intervention, (**Table 11**) it is found that the mean scores of the five trauma symptoms of the survivors of Kolkata site did not differ significantly from the mean scores of that of the Mumbai Site survivors. But, the mean score of ‘sexual concern’ of the Mumbai site survivors is significantly greater than that of the Sukanya Home survivors after six months of DMT intervention. The t-value indicated that there is significant difference (at .05 level) between the Kolkata Site TG-3 survivors’ and Mumbai Site TG-3 survivors’ trauma symptom of sexual concern. But, the t-values of the other five trauma symptoms indicated that there is no significant difference between the Kolkata Site TG-3 survivors’ and Mumbai Site TG-3 survivors’ intensity of trauma symptoms.

The analysis of the Post-DMT intervention data facilitated the verification of **Hypothesis no.11**.

Hypothesis 11 proposed that the **Mumbai-TG-3** will differ significantly from the **Kolkata-TG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.

Hypothesis 11 was rejected for 5 symptoms of Trauma: Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation of the TSCC scale of both the groups, i.e., TG-3 of the Kolkata site and TG-3 of the Mumbai site. But, **Hypothesis 11** was accepted for the Trauma symptom of Sexual Concern of both the groups, i.e., TG-3 of the Kolkata site and TG-3 of the Mumbai site.

Table 12: t- statistics showing the significance of difference between the CG-3 of Kolkata Site survivors and CG-3 of Mumbai Site Survivors regarding the six symptoms of Trauma

Independent Samples Test

K_CG3 Vs M_CG3	t-test for Equality of Means						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Anxiety3	-.424	19	.676	-2.472	5.832	-14.679	9.735
Depression 3	1.687	19	.108	8.750	5.186	-2.105	19.605
Anger3	.347	19	.732	1.639	4.725	-8.250	11.528
PTS3	1.308	19	.207	4.722	3.611	-2.835	12.279
Dissociation3	.529	19	.603	1.528	2.889	-4.520	7.575
SexCon3	-.871	19	.395	-9.167	10.529	-31.203	12.870

* Significant at .05 level ** Significant at .01 level

Table 12 indicated that the mean scores of the six trauma symptoms of Kolkata site CG-3 survivors did not differ significantly from the mean scores of that of the Mumbai Site CG-3 survivors. The t-values revealed that there is no significant difference between the Kolkata Site CG-3 and Mumbai Site CG-3 survivors regarding the TSCC trauma symptoms after six months from the time of Pre-DMT Trauma assessment.

The analysis of the Post-DMT intervention data facilitated the verification of **Hypothesis no.12**.

Hypothesis 12 proposed that **Mumbai-CG-3** will differ significantly from the **Kolkata-CG-3** with respect to each of the six domains of TSCC **after six months** of DMT intervention.

Hypothesis 12 was rejected for all the 6 symptom of Trauma: Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern of the TSCC scale for both the groups, i.e., the CG-3 of the Kolkata site and CG-3 of the Mumbai site.

Discussions:

The present research study had endeavoured to find out whether dance and movement has any therapeutic impact on the traumatic symptoms of the survivors of trafficking or sexual violence. Although, this is a six months pilot study, just after the completion of three months of DMT intervention, a second phase of data analysis was done in order to assess the mid-period impact of DMT intervention. After the completion of six months of DMT intervention, the third phase of data analysis was done.

After three months of DMT intervention:

TG2 Vs CG2:

An analysis of the present findings (**Table 1A**) suggests that, after getting dance movement therapy for the first three months, the traumatic symptoms of anxiety, depression and post-traumatic stress of the treatment group (TG-2) of Sukanya Home- Kolkata have reduced significantly as compared to the control group (CG-2). The provision of DMT for the first three months, has significantly contributed to improve the intensity of three traumatic symptoms of the trafficking/sexual abuse survivors of the treatment group of Sukanya Home. This finding of improvement in the traumatic symptoms of anxiety, depression and PTS due to DMT gives room for optimism.

TG1 Vs TG2:

Again, the analysis of the findings of **Table 3A** and **Table 3B** suggest that the mean scores of TG-2 of both the site survivors, i.e., the survivors of Sukanya Home and Boisar Home have shown significant improvement in all the six symptoms of trauma, i.e., Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern, as compared to the mean scores of six such trauma symptoms of K-TG1 and M-TG1, after three months of DMT intervention.

After six months of DMT intervention:

TG-3 Vs CG-3:

Interestingly, the analysis of the findings of **Table 2A** and **Table 2B** suggest that, after getting Dance Movement Therapy for six months, all the six symptoms of trauma (TSCC scale) i.e., Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern of the treatment group (TG-3) of Sukanya Home- Kolkata and four of the symptoms of trauma (TSCC scale) i.e., Anxiety, Depression, Post-Traumatic Stress, and Dissociation of the treatment group (TG-3) of Boisar Home-Mumbai have significantly reduced (at .01 level) as compared to the control groups (CG-3).

While DMT intervention for six months has brought significant improvement in the trauma symptoms of TSCC for the treatment group of Boisar home (TG-3) (as compared to the CG-3), the treatment

group of the Sukanya Home (TG-3) have started showing significant improvement in the trauma symptoms of the TSCC from three months of DMT intervention (as compared to the CG-3) .

TG-2 Vs TG-3:

The findings of **Table 5A** and **Table 5B** mirrored that, after six months of DMT intervention, the mean scores of TG-3 of both the site survivors, i.e., Sukanya Home and Boisar Home survivors have shown significant improvement in all the six symptoms of trauma, i.e., Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern, as compared to the mean scores of six such trauma symptoms of TG-2 of Sukanya Home and Boisar Home survivors.

TG-1 Vs TG-3:

Again, after six months of DMT intervention (Table 7A and Table 7B), all of the six symptoms of TSCC, i.e., Anxiety, Depression, Anger, Post-Traumatic Stress, Dissociation and Sexual Concern of the TG-3 of both the sites- Sukanya Home and Boisar Home- have shown great improvement (significant at .01 level) as compared to the TG-1 of both the sites.

Comparison between the TSCC scores of TG1 and TG2 with the TG3 proves the necessity of DMT intervention for at least six months duration to bring significant improvement in the trauma symptoms of the survivors of trafficking/ sexual violence.

Kolkata-TG-3 Vs Mumbai- TG-3:

The finding that the mean score of the trauma symptom of ‘sexual concern’ of the Mumbai site TG-3 survivors is significantly greater than that of the Sukanya Home TG-3 survivors- needs to be handled with special care from the part of the institutional supervising authority.

The overall analysis of the findings indicates that DMT intervention for six months have brought significant reduction in the six trauma symptoms (of the TSCC scale) of the survivors of Trafficking/ Sexual violence. Earlier, it has been noticed in the Pre-DMT intervention data (**Table 15**) the examination of each of the eight critical items along with their percentage endorsed by the survivors of the TGs and CGs of both the sites, that is, the Boisar Home and the Sukanya Home. These items, which examined potential self injury, suicidal tendency, desire to harm others, expectations of sexual maltreatment, involvement in fights, fears of men, fears of women, and fears of being killed, suggested problems or issues that may require immediate clinical attention. In the pre-DMT intervention stage, the survivors’ responses to the critical items indicated losing complete trust on people (men and women too), and being in a feeling of intense threat to be sexually abused, higher tendency to self harm and high aggressive mode of behaviour. But, the intervention of Dance and Movement had a great therapeutic impact on the six trauma symptoms of these survivors of trafficking/sexual violence which resulted in significant improvement in the six trauma symptoms, improvement in the ability to communicate, taking self care and improvement in self image of the survivors of trafficking/sexual violence under study.

These findings are supported by some of the previous research findings. DMT enhances life quality and reduce symptoms of depression and anxiety (Byrne & Byrne, 1993; Lane, 2001; Ommundsen, 2000; Stathopoulou, Powers, Berry, Smits & Otto, 2006; Taylor, 2006). DMT has, in fact, been used in work with traumatized patients (Gray, 2001; MacDonald, 2006; Meekums, 1999; Mirro-Finer, 1999; Moore, 2006; Thulin, 1999). A few studies on psychiatric patients have also shown reduction in anxiety (Brooks & Stark, 1989; Kline et al., 1977). Depression (Kuettel, 1982;) due to DMT.

Limitations

1a) The current research sample was not large enough (N=50) and involved only the girl survivors of trafficking/sexual violence, but there are a large number of boy survivors of trafficking/sexual violence who were not included in the study, as a result, may not represent the clients in the community as a whole. 1b) The sample size (N=30 at Mumbai site and N=20 at Kolkata site) may be regarded as small and hence generalization of our findings to all types of clients is not possible, 2) Initially, this study was started with a sample size of 50 (N=50). But, due to restoration of 7 survivors of trafficking/sexual violence to their family by both the sites, the total sample size came down to N=43. Study on this floating population with six months pre-post research design has posed a barrier in generalization of the result. 3) Further research could include a mixed methods design combining qualitative and quantitative approaches 4) This pilot study was done for six months. But to evaluate the effectiveness of optimum time limit of DMT, conducting longitudinal study on the effectiveness of DMT could have shown more authentic result.

Some Statements of the therapists at the Boisar Home

- **We did a ground warm-up,**
- **Next we did Anger activity of stamping and punching with using sound**
- **Some shared that they had slight headaches.**
- **During relaxation – one of the girls began to cry.**
- **After relaxation - All shared that they felt light and happy.**
- **In the debrief :Many shared how DMT has helped them in reducing their anger and brought peace.**
- **Some of them shared that they don't feel like coming initially but once they come they feel good.**

Conclusion:

The recent upsurge of interest regarding Dance Movement Therapy (DMT) and its impact on trafficking and sexual violence is exciting and timely. The impact of DMT on the trauma symptoms must be considered a crucial outcome measure in studies of medical and psychosocial interventions in innovative service models. The most pressing need of the present study was to explore and assess the psychotherapeutic use of dance and movements for the furtherance of emotional and physical integration of the survivors of trafficking/sexual violence.

Probably, this empirical study is the first of its kind in India which has conducted research study on the assessment of the impact of DMT on the Trauma symptoms, as there is no well documented research study available in India of this kind. Additionally, this study illuminated rarely considered aspects, i.e., the effect of Dance Movement Therapy (DMT) on the survivors of trafficking/sexual violence.

It is a **great achievement of this study** that it could prove through empirical research that the clinically elevated trauma symptoms of the survivors of trafficking/ sexual violence can be reduced by the intervention of DMT and DMT can enhance their body awareness, their expression of feelings, foster interaction and communication, and the integration of the physical, emotional, and social experiences has resulted in a increased sense of self- confidence and contentment. According to Gross (1998), 'It is reasonable to believe that any therapy that is efficient in terms of enhancing abilities to recognize and express affect, is an efficient treatment'. The present empirical study has shown that DMT has a therapeutic impact on mental health. It has shown that dance and movements as therapy can enhance the DMT participants' ability to take self- care, ability to initiate and maintain social relationships, ability to communicate and understand and the ability to work.

Real-world performance is the product of a complex array of abilities, deficits, and symptoms. Other factors such as social and cultural influences are involved and we need to be mindful of this when planning interventions. In this endeavour, it was observed that the DMT therapists' empathic attitude and leadership quality has played a pivotal role in enhancing the mechanism to regulate traumatic symptoms of the participants of the treatment group.

Furthermore, this study pointed out that DMT can improve the ability to take self care, to work properly and also has helped the clients' coping strategy, respects the dignity of the girl survivors of trafficking/sexual violence and is an economic approach. Consequently, DMT may be suitably integrated as a standard path of treatment in all health services, in Day care centres, in psychiatric treatment centres and other such institutional agencies. DMT in the community may promote hope, joy and a sense of meaningful life.

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