

Research Paper

Impact of Dance/Movement Therapy on Emotion Regulation-A Study on Geriatric Population

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ABSTRACT

The study was conducted to understand whether there is any impact of Dance/Movement Therapy (DMT) on emotion regulation among geriatric population belonging to the age group of 65-95. This quasi-experimental research design used a single assessment tool which is Emotion Regulation Questionnaire (ERQ) given by Gross, J.J., & John, O.P in 2003. Purposive sampling method was used for data collection and the total sample size was N= 7, with 5 females and 2 males. The statistical tools used in this study are descriptives (mean and standard deviation) and paired sample t-test. The study aimed at understanding the impact relationship between Dance/Movement Therapy (DMT) on emotion regulation in geriatric population. The pre-test- post-test results were interpreted. The results revealed that there was no significant impact of Dance/Movement Therapy (DMT) on emotion regulation.

Keywords: *Dance/Movement therapy, Emotion Regulation, Geriatrics*

Elderly people are often emotionally stable and well-regulated, but as physical and/or cognitive deterioration sets in, undesired emotional states may be masked by psychological and emotional defensive mechanisms. Due to the influence of changes in living circumstances like forced retirement, the death of a spouse, changes in the home environment, or financial uncertainty, for some older people, perceived mental and physical decline becomes self-evident earlier than 70 years old.

The transition can be rapid, but can also be gradual, slow, and insidious. This period is frequently fraught with anxiety, depression, worry, and fear so, intervention can be provided to prevent self-destructive decisions and behaviors, such as loneliness, depression, suicide, refusal of medication or treatment, and refusal of care from family members or medical professionals, with an evidence-based developmental model of the trajectory of change in emotional processing and regulating in the elderly.

Emotion regulation is the ability to exert control over one's own emotional state. It could entail actions like evaluating a stressful situation to lessen anger or anxiety, covering up obvious signs of fear or grief, or concentrating on things that make you feel optimistic, or regulating what emotions they have, when they have them, and how they experience and

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express these emotions. Gross and Thompson (2007) defined emotion regulation as reflecting a combination of automatic or controlled, conscious or unconscious processes, influencing emotions in self, others, or both. Emotional regulation is multifaceted. Some forms of emotion regulation are healthier than others because they focus on two commonly used emotion regulation strategies: cognitive reappraisal and expressive suppression (Gross and John, 1998).

Cognitive reappraisal, for instance, is described as the endeavor to reinterpret an emotion-eliciting circumstance in a way that modifies its meaning and emotional impact (Lazarus and Alfert, 1964; Gross and John, 2003). The attempt to hide, inhibit, or minimize ongoing emotion- expressive behavior is defined as expressive suppression (Gross and Levenson, 1993; Gross and John, 2003).

Dance/movement therapy can be a helpful tool for emotional regulation because it allows individuals to express and process their emotions through movement and physical expression. This involves using dance and movement to support emotional, cognitive, and physical well- being. It can help individuals become more aware of their emotions, express them in a safe and supportive environment, and regulate them through movement. It can help individuals develop greater awareness of their body and its sensations, which can facilitate the identification and regulation of emotions. It also provides a creative outlet for emotional expression, allowing individuals to express emotions that may be difficult to verbalize. It helps individuals become more aware of their emotions, thoughts, and behaviors, which can facilitate the development of self-regulation skills. It focuses on individuals developing coping strategies and resilience in the face of challenging emotions, which can support long-term emotion regulation.

DMT has been shown to be an effective tool for emotional regulation in geriatric populations. DMT can help to address these emotional challenges by providing a safe and supportive space for individuals to explore and express their emotions through movement. Through DMT, geriatric patients can learn to identify and regulate their emotions, while also improving their physical function and overall well-being. DMT can help to improve balance, coordination, and flexibility, while also providing a sense of social connectedness and support. DMT can help to promote social connectedness and reduce feelings of loneliness in geriatric patients. As people age, they may experience social isolation due to a range of factors, including retirement, mobility limitations, and loss of loved ones. DMT can provide a safe and supportive space for individuals to connect with others and build meaningful relationships through movement and shared experiences.

Statement of the problem

To examine the impact of Dance/Movement Therapy on Emotional Regulation in the Geriatric Population who live in old age homes.

Objectives of the study

To find the effect of dance/movement therapy on emotional regulation among geriatric population in old age homes.

Hypothesis

H0 - There is no effect of dance/movement therapy on emotional regulation in pre and post-tests among geriatric population.

METHODOLOGY

Sample

A total of 7 older adults were included in the study. Among them, there were 5 females and 2 males. The purposive sampling technique is used in the research.

Instruments

One measure was used in this study, Emotion Regulation Questionnaire: ERQ is 10-item self-report questionnaire given by Gross, J.J., & John, O.P in 2003. They assess two facets, namely: cognitive reappraisal, expressive suppression. The internal consistency reliability of cognitive reappraisal is $\alpha = .89-.90$ and expressive suppression is $\alpha = .76-.80$ indicating that scores had acceptable to excellent levels of internal consistency reliability. Each item can be responded from 'strongly agree' to 'strongly disagree'

Procedure

The intervention program was conducted in three phases. The first phase being the pre-test, second phase being intervention phase and the third phase being post-test phase.

Phase 1: The phase one was the pre-test phase. In this phase Emotion regulation questionnaire was administered on all the 20 elderly people in the old age home. The test results were interpreted. All those who scored low on the test were identified and selected for the intervention phase. Total of 7 elderly people (N=7) were selected for the intervention phase.

Phase 2: The phase two was the intervention phase. In this phase the selected 7 elderly people were made to understand about the dance/movement therapy and made them familiar with the basic movements. This phase lasted for 7 days. The 7 sessions were taken on a regular basis. Each session lasted for 45 minutes. All the required precautions were taken care during the session. The main techniques used during the sessions were mirroring and movement metaphors.

I. Mirroring

Mirroring is the act of imitating or continuing another person's motions. The process fosters connection and empathy. Mirroring can support experience validation. It can promote harmony and comprehension. In the therapy sessions the therapist mirrored the movements of the clients and the clients mirrored the movements of the therapist. It established better relationship between the therapist and the clients. There is also a chance to focus on the emotions of the clients through mirroring and sense of emotional clarity is derived. Mirror neurons are activated during this technique. Due to mirror neurons, it is also possible to imagine and observe a client's motions and posture in order to feel what they are feeling. This was possible in the sessions that I was able to mirror their moments and vice versa, which made me understand the moments and their underlying emotions.

II. Movement Metaphors

A metaphor can be used by a person to dance their feelings. They may enhance the metaphor by using props. Metaphor can help to illustrate important interactions with others, celebrate accomplishments, or sort through conflicting feelings. Props like chair and bottle were used to express few of the emotions and helped in interacting each other.

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Phase 3: The phase three was the post-test phase. The Emotional Regulation Questionnaire (ERQ) was administered on the samples that have undergone intervention. The questionnaire was administered after 3 days of completion of the 7-days sessions. The results were then interpreted and the sessions were terminated. Then the pre-test and post-test levels are interpreted and the effect of dance/movement therapy on emotional regulation is studied.

Statistical Analysis

Descriptive statistics like mean and standard deviation are used. Mean and standard deviation are used to understand if there is a difference in the pre-test and post-test. Inferential statistics like parametric test, paired sample t-test is used to understand the difference in the pre and post- test levels of emotional regulation.

RESULTS

Table 1: Table displaying Demographic Details

N	Gender		Age		
	Female	Male	65-75	76-85	86-95
7	5	2	3	2	2

The dance/movement therapy intervention was provided for 7 older adults out of which 5 are female and 2 are male. People belong to an age group of 65-75, 2 of them belong to 76-85 and 2 people belong to the age group of 86-95 all of them belonging to an old age home. The intervention was provided for 7 days for 45 minutes per session. The final sample size is 7 as the others were not falling under the inclusion criteria.

Table 2: Table displaying Mean, Standard Deviation and Standard Error mean

	N	Mean	SD	SE
Pre test CR	7	3.97	1.41	.53
Post test CR	7	4.69	1.23	.46
Pre test ES	7	4.17	1.50	.56
Post test ES	7	4.32	1.67	.63

CR-Cognitive Reappraisal

ES-Expressive Suppression

The descriptive statistics like mean, standard deviation and standard error mean were interpreted and the mean of pre-test cognitive reappraisal was 3.97, the standard deviation was found to be 1.14 and the standard error mean was 0.53. The post-test mean of cognitive reappraisal was 4.69, standard deviation was 1.23 and the standard error mean was found to be 0.46. The pre-test mean of emotional suppression was 4.17, standard deviation was 1.50 and the standard error mean was 0.56. The post-test mean of emotional suppression was 4.32, standard deviation was 1.67 and the standard error mean was 0.63. There was a mean difference in the pre and post-test of cognitive reappraisal and pre-test and post-test mean of emotional suppression. There is also standard deviation difference in the pre-test and post-test of cognitive reappraisal as well as emotional suppression.

Table 3: Table displaying Mean, Standard Deviation, Mean Difference and Within group results for pre- to post-DMT emotion regulation

Paired Differences				t	df	Sig. (2-tailed)
	Mean	SD	SE			
Pre test CR - Post test CR	-.71	1.29	.49	-1.45	6	.19
Pre test ES - Post test ES	-.14	2.47	.93	-.153	6	.88

CR-Cognitive Reappraisal
ES-Expressive Suppression

A paired sample t test was conducted to evaluate the impact of dance/movement therapy on emotional regulation among geriatric population. The results showed no significant change in the emotional regulation strategies of cognitive reappraisal and emotional suppression. The pre-test mean of cognitive reappraisal was 3.97 and standard deviation was 1.41. The post-test mean of cognitive reappraisal was 4.69 and standard deviation was 1.23. The pre-test mean of emotional suppression was 4.17 and standard deviation was 1.50. The post-test mean of emotional suppression was 4.32 and standard deviation 1.67. The pre-test and post-test mean difference of cognitive reappraisal was -0.71. The pre-test and post-test mean difference of emotional suppression was -0.14. The t value of cognitive reappraisal was -1.45 and emotional regulation was -0.15. The significance level at 95% confidence level for cognitive reappraisal was 0.19(p>0.05) and for emotional suppression was 0.88(p>0.05). The null hypothesis that ‘there is no effect of dance/movement therapy on emotional regulation in pre and post-tests among geriatric population’ is accepted.

DISCUSSION

Emotions are produced by communicating the current condition of the body to the brain through interoceptive and proprioceptive afferent information, reworked his idea in terms of neurophysiology (Damasio, 1999; Damasio et al., 2000; Damasio and Carvalho, 2013). This idea is applied in dance/movement therapy sessions, where the therapist aided the patient in evoking, processing, and regulating particular emotions by instructing the patient to move in a particular manner. The therapist also made use of the theory that certain motor characteristics increase particular emotions when she imitates the client's movements or motor characteristics in an effort to empathise with and feel what the client feels. Due to mirror neurons, it is also possible to imagine and observe a client's motions and posture in order to feel what they are feeling. This was possible in the sessions that I was able to mirror their moments and vice versa, which made me understand the moments and their underlying emotions. It was discovered that the motor system is activated during motor imagery in a manner similar to how it is activated during motor execution (Grezes and Decety, 2001; Filimon et al., 2007) the movements are embodied simulations, with the exception of an additional inhibition of the final motor output (Guillot et al., 2012). This causes a simulated sensory experience of those motions (Naito et al., 2002), and in some cases, actual changes in heart rate and respiration (Decety et al., 1991), which then evoked the corresponding emotion in a manner comparable to how the emotion would be elicited by the muscular execution of the same movements. During a DMT session, clients are frequently encouraged to embody, improvise, and express in movement the issue they are trying to resolve, how they would approach it, as well as their perspective on a particular person or circumstance, or their behavioural or emotional response to certain circumstances or stimuli (Bernstein, 1995). The client was able to consciously recognise, hone focus on, and process the emotions that are connected to these movements because they evoke and amplify the emotions that are connected to them (Mills and Daniluk, 2002). Additionally, therapist

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encouraged their clients to move in ways that are consistent with certain attitudes in order to investigate their feelings (Ginsburgs and Goodill, 2009).

A habit will become ingrained in your daily routine after 21 days of effort, and you won't need to worry about it again. (Maxwell Matz, 1950) In fact, 96 people's habits were examined over the course of a 12-week study published in the *European Journal of Social Psychology*. It is believed that a habit takes 66 days on average to develop into an automatic practise and it can take some people up to eight months. But, here in the research the duration of the intervention was 7 days, which does not account to the theory of habit formation. Despite the less duration there was a slight change in the means of pre-test and post-test in both cognitive reappraisal and emotional suppression. This can be effective if the intervention was given for 21 days of minimum time frame. Also, other confounding factors such as age, interest, temperature might have impacted the results. There might be significant impact if the intervention was given at least for 21 days.

CONCLUSION

The intervention can be sustained for a longer period of time to support the hypothesis of habit formation even though there was no significant difference between the pre-test and post-test values. The means of pre-test and post-test scores for emotion regulation had a small change. If the intervention time period were extended, this difference might be maximized. This may increase the likelihood that the cognitive reappraisal aspect of emotion regulation will evolve and reduce the likelihood that the emotion suppression aspect of emotion regulation will change.

Further Implications

1. By increasing the time frame there would be a better impact
2. A mixed approach of the study can be done for deeper understanding.

REFERENCES

- Admin, A. (n.d.). *What is Dance/Movement Therapy?* <https://adta.memberclicks.net/what-is-dance-movement-therapy>
- Barnet-Lopez, S., Pérez-Testor, S., Cabedo-Sanromà, J., Oviedo, G. R., & Guerra-Balic, M. (2016). Dance/Movement Therapy and emotional well-being for adults with Intellectual Disabilities. *The Arts in Psychotherapy, 51*, 10–16. <https://doi.org/10.1016/j.aip.2016.08.002>
- Blanchard-Fields, F., Stein, R., & Watson, T. L. (2004). Age Differences in Emotion-Regulation Strategies in Handling Everyday Problems. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 59*(6), P261–P269. <https://doi.org/10.1093/geronb/59.6.p261>
- Choi, Y. H., & Jeon, E. Y. (2013). Effects of Art Therapy on Cognition, Depression, and Quality of Life in Elderly. *Journal of Korean Academy of Community Health Nursing, 24*(3), 323. <https://doi.org/10.12799/jkachn.2013.24.3.323>
- Esmail, A., Vranceanu, T., Lussier, M., Predovan, D., Berryman, N., Houle, J., Karelis, A., Grenier, S., Minh Vu, T. T., Villalpando, J. M., & Bherer, L. (2020). Effects of Dance/Movement Training vs. Aerobic Exercise Training on cognition, physical fitness and quality of life in older adults: A randomized controlled trial. *Journal of Bodywork and Movement Therapies, 24*(1), 212–220. <https://doi.org/10.1016/j.jbmt.2019.05.004>
- Fersh, I. E. (1980). Dance/movement therapy: A holistic approach to working with the elderly.

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- American Journal of Dance Therapy*, 3(2), 33–43. <https://doi.org/10.1007/bf02579617>
- Gayvoronskaya, E., & Shapovalov, D. (2009). Integrative dance/movement psychotherapy and the aging process. *Body, Movement and Dance in Psychotherapy*, 5(2), 185–196. <https://doi.org/10.1080/17432970902917901>
- GoodTherapy Editor Team. (2018, May 15). *Dance / Movement Therapy*. <https://www.goodtherapy.org/learn-about-therapy/types/dance-movement-therapy>
- Gross, J. J., Carstensen, L. L., Pasupathi, M., Tsai, J., Götestam Skorpen, C., & Hsu, A. Y. C. (1997). Emotion and aging: Experience, expression, and control. *Psychology and Aging*, 12(4), 590–599. <https://doi.org/10.1037/0882-7974.12.4.590>
- Gross, J.J., & John, O.P. (2003). Individual differences in two emotion regulation
- Ho, R. T. H., Fong, T. C. T., Chan, W. C., Kwan, J. S. K., Chiu, P. K. C., Yau, J. C. Y., & Lam, L. C. W. (2018). Psychophysiological effects of Dance Movement Therapy and physical exercise on older adults with mild dementia: A randomized controlled trial. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 75(3), 10.1093/geronb/gby145. <https://doi.org/10.1093/geronb/gby145>
- Holmerová, I., Macháčová, K., Vanková, H., Veleta, P., Jurasková, B., Hrnčiariková, D., Volicer, L., & Andel, R. (2009). Effect of the Exercise Dance for Seniors (EXDASE) Program on Lower-Body Functioning Among Institutionalized Older Adults. *Journal of Aging and Health*, 22(1), 106–119. <https://doi.org/10.1177/0898264309351738>
- Hwang, P. W., & Braun, K. L. (2015). The Effectiveness of Dance Interventions to Improve Older Adults' Health: A Systematic Literature Review. *Alternative Therapies in Health and Medicine*, 21(5), 64–70.
- Jiménez, J., Bräuninger, I., & Meekums, B. (2019). Dance movement therapy with older people with a psychiatric condition: A systematic review. *The Arts in Psychotherapy*, 63, 118– 127. <https://doi.org/10.1016/j.aip.2018.11.008>
- Kobylińska, D., & Kusev, P. (2019). Flexible Emotion Regulation: How Situational Demands and Individual Differences Influence the Effectiveness of Regulatory Strategies. *Frontiers in Psychology*, 10(72). <https://doi.org/10.3389/fpsyg.2019.00072>
- Lin, L.-J., Ctrs Elizabeth McClear, & Carla. (2008). The outcomes of therapeutic dance movement on physical and emotional functioning for elderly people. *American Journal of Recreation Therapy*, 7(1), 25–25. <https://doi.org/10.5055/ajrt.2008.0005>
- N. Siva Subramanian, Patel, N. P., B. Mahalakshmi, & Prakash, D. (2023). Effect of Dance Therapy on Stress Among Geriatrics. *International Journal of Life Science and Pharma Research*. <https://doi.org/10.22376/ijlpr.2023.13.2.1125-1132>
- Pawar, M. (2023, March 6). *The Different Techniques and Approaches Used in Dance Movement Therapy |Mrunal Pawar*.MrunalPawar. <https://www.mrunalpawar.com/blog/techniques-and-approaches-used-in-dance-movement-therapy/>
- Personality and Social Psychology, 85, 348-362.processes: Implications for affect, relationships, and well-being. *Journal of Social Psychology*
- PsyD, G. A. (2022). How to Use Dance Movement Therapy: 14 Steps (with Pictures). *wikiHow*. <https://www.wikihow.com/Use-Dance-Movement-Therapy>
- Punikanen, M., Saarikallio, S., & Luck, G. (2014). Emotions in motion: Short-term group form Dance/Movement Therapy in the treatment of depression: A pilot study. *The Arts in Psychotherapy*, 41(5), 493–497. <https://doi.org/10.1016/j.aip.2014.07.001>
- Ritter, M., & Low, K. G. (1996). Effects of dance/movement therapy: A meta-analysis. *The Arts in Psychotherapy*, 23(3), 249-260.[https://doi.org/10.1016/0197-4556\(96\)000275](https://doi.org/10.1016/0197-4556(96)000275)
- Sasagawa, M. (2021). An Emotion Regulation Transition Model for the Elderly: A Hypothesis. *American Journal of Biomedical Science & Research*, 11(6), 582–586. <https://doi.org/10.34297/ajbsr.2021.11.001699>

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- Urry, H. L., & Gross, J. J. (2010). Emotion Regulation in Older Age. *Current Directions in Psychological Science*, 19(6), 352–357. <https://doi.org/10.1177/0963721410388395>
- West, M. (2022, March 31). *What to know about dance movement therapy*. <https://www.medicalnewstoday.com/articles/dance-therapy#benefits>
- Wołoszyn, N., Wiśniowska-Szurlej, A., Grzegorzczak, J., & Kwolek, A. (2021a). The impact of physical exercises with elements of dance movement therapy on the upper limb grip strength and functional performance of elderly wheelchair users living in nursing homes—a randomized control trial. *BMC Geriatrics*, 21, 423. <https://doi.org/10.1186/s12877-021-02368-7>

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Conflict of Interest

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