Open Access, Peer Reviewed, Research Journal

Print & Online available on https://jesbulletin.in
Research Article

PSYCHOLOGICAL EFFECTS OF MARTIAL ARTS TRAINING IN HEARING-IMPAIRED ADOLESCENTS: A COMPARATIVE INVESTIGATION

Bageshri Nadgeri
PhD scholar, Department of Physical Education, University of Mumbai, M.S., India

Article Info

Received: 27/03/2025
Revised: 28/03/2025
Accepted:28/03/2025

Keywords: psychological effects, martial arts, Indian Education System, health, adolescents

Abstract

This comparative study examines the psychological effects of martial arts training on hearing-impaired adolescents, focusing on the differences between males and females. A total of 60 hearing-impaired adolescents (30 males, 30 females) aged 13-19 participated in a 16-week martial arts training program. The program's impact on self-image was assessed using standardised pre- and post-test measures. The results of male participants were compared to the results of female participants of hearing-impaired adolescents who participated in martial arts training.

The study's findings provide valuable insights into the psychological benefits of martial arts training for hearing-impaired adolescents, highlighting its potential as a therapeutic intervention for improving mental health outcomes. The results also reveal differences in the psychological effects of martial arts training between males and females, contributing to our understanding of the complex relationships between martial arts training, gender, and psychological outcomes.

INTRODUCTION:

Hearing impairment is a significant challenge faced by adolescents worldwide, affecting not only their communication skills but also their psychological well-being. Research has shown that hearing-impaired adolescents are more likely to experience low self-esteem, social isolation, and anxiety compared to their hearing counterparts (Johnson, 2013; Marschark, 2007). Therefore, it is essential to explore alternative interventions that can promote psychological well-being and self-image in hearing-impaired adolescents.

Martial arts training has been recognized as a valuable tool for promoting physical and psychological well-being in individuals with disabilities (Hodge, 1989; Kretchmer, 2005). The discipline, structure, and social support inherent in martial arts training can foster a sense of self-worth, confidence, and self-image (Weinberg & Gould, 2015). However, there is a lack of research examining the psychological effects of martial arts training specifically in hearing-impaired adolescents.

This study aims to investigate the psychological effects of martial arts training on hearing-impaired adolescents, exploring differences between males and females. By examining the impact of martial arts training on self-image, this study seeks to contribute to our understanding of the complex relationships between martial arts training, gender, and psychological outcomes in hearing-impaired adolescents. This research will provide valuable insights into the potential benefits of martial arts training for hearing-impaired adolescents.

activities enhances cognitive functions such as memory, concentration, and problem-solving abilities. Studies

1.1 Rationale of the Study

The rationale of this study is to investigate the psychological effects of martial arts training on hearing-impaired adolescents, with a specific focus on exploring differences between males and females. The study aims to address the following research gaps:

1. Limited research on hearing-impaired adolescents: Despite the growing body of research on the psychological effects of martial arts training, there is a lack of studies specifically focusing on hearing-impaired adolescents.

2. Need for alternative interventions: Hearing-impaired adolescents often face unique challenges that can impact their psychological well-being. Martial arts training offers a promising alternative intervention that can promote self-image, self-esteem, and overall psychological well-being.

3. Importance of exploring gender differences: Research has shown that males and females may respond differently to martial arts training. This study aims to explore these differences and provide insights into the specific needs of male and female hearing-impaired adolescents..

1.2 Brief about Martial Arts:

Martial arts are a group of disciplines that originated in Eastern cultures, combining physical movement, mental focus, and spiritual growth. The term "martial arts" encompasses a wide range of practices, including:

1. Striking arts: Disciplines that emphasize punching, kicking, and striking, such as Karate, Taekwondo, and Boxing.
2. Grappling arts: Disciplines that focus on throwing, grappling, and submission, such as Judo, Wrestling, and Brazilian Jiu-Jitsu.3. Hybrid arts: Disciplines that combine elements of striking and grappling, such as Kickboxing and Mixed Martial Arts.

Martial arts training offers numerous benefits, including:

1. Physical fitness: Improved cardiovascular health, strength, flexibility, and coordination.
2. Mental discipline: Enhanced focus, concentration, and self-control.
3. Emotional well-being: Reduced stress, anxiety, and depression.
4. Social benefits: Opportunities for socialization, teamwork, and community building.

1.3 Introduction to Training Program:

This research introduces a a basic Martial arts training program including basic fitness movements, grappling, striking, blocking, aimed at hearing-impaired students. This program includes a range of activities, such as joint mobility exercises, stretching routines, traditional martial artstechniques, kickboxing, and kata movements. The training program spans four months, with sessions conducted three times a week for one hour each.

1.4 Psychological Variables:

Psychological variables encompass aspects of an individual's personality, behavior, and emotions that are essential in research. The study examines self-image/self-esteem as a psychological variable, aiming to understand its evolution during the martial arts training program.

1.5 Statement of the Problem:

The research study aims to investigate the "Psychological Effects of Martial Arts Training In Hearing-Impaired Adolescents: A Comparative Investigation.

2. REVIEW OF LITERATURE :

The available literature provided valuable insights into the potential effects of martial arts

training, the psychological effects of martial arts training, with a specific focus on hearing-impaired adolescents. Research has consistently shown that martial arts training can have a positive impact on psychological outcomes, including:

1 Reduced stress and anxiety: Martial arts training has been shown to reduce stress and anxiety in both children and adults (Harris, 1996; Weinberg & Gould, 2015).

2. Improved self-esteem: Martial arts training has been linked to improved self-esteem and self-confidence in individuals with disabilities (Hodge, 1989; Kretchmer, 2005).

3. Enhanced emotional regulation: Martial arts training has been shown to improve emotional regulation and coping skills in adolescents (Lakes & Hoyt, 2004).

Dlouh et al.'s (2012) observations on the structure of Shaolin Kung Fu training underscore the organized and progressive nature of martial arts curricula. This structured approach can be adapted to create inclusive and effective training programs for hearing-impaired students.

Negrea et al.'s (2020) study on the integrative approach of martial arts athletes highlights the potential holistic benefits of martial arts training. For hearing-impaired students, this suggests that martial arts can offer a comprehensive approach to physical and mental well-being.

While the reviewed literature primarily focuses on various aspects of martial arts training in different populations, it provided a foundation for considering the potential benefits of martial arts training for hearing-impaired students. Further research specifically targeting this population was warranted to assess the impact on psychological variables and to develop tailored training programs to address their unique needs.

3. METHODOLOGY

3.1 Selection of subjects

Thirty male and Thirty female adolescents hearing-impaired aged 13 to 19 years were randomly chosen as participants for this study

from a pool of 100 hearing-impaired adolescents residing in the Mumbai suburban region.

3.2 Selection of Variable

To assess the impact of martial arts training on hearing-impaired adolescents, various parameters falling under independent and dependent variables were meticulously chosen. These selections were made in consultation with experts and after a thorough review of relevant literature.

3.3 Training program

The selected 30 male and 30 female hearing-impaired students, aged 13 to 19 years, from the Mumbai Suburban area. Both underwent a 16-week martial arts training program, which encompassed joint mobility exercises, stretching routines, traditional martial arts training, kickboxing, and more. The entire integrated training regimen spanned a duration of 16 weeks. Training sessions were conducted three times a week, lasting one hour each, in the morning.

Pre-tests and post-tests were administered to evaluate psychological variable pertaining to self-image.

The study unfolded in three distinct phases:

- Phase I: Pre-test
- Phase II: Training
- Phase III: Post-test

4. STATISTICAL ANALYSIS

To examine the hypotheses of the study, descriptive statistics such as mean, and standard deviation and comparative statistics such as ‘t-test and single factor ANOVA were applied, and tested at a 0.05 level of significance.

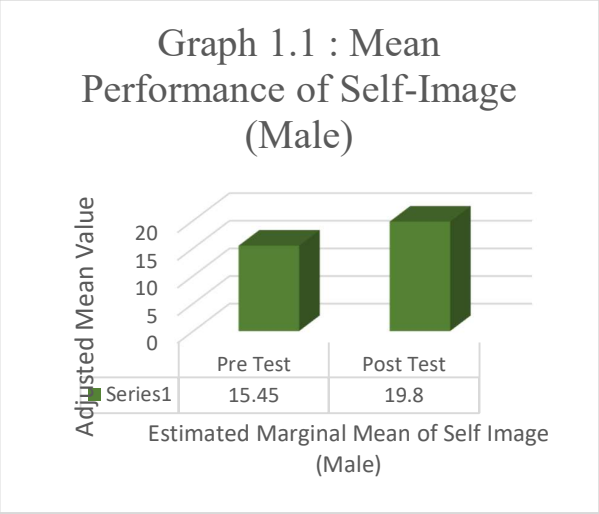
Graph 1.1 & 1.2
TREATMENT-WISE COMPARISON OF ADJUSTED MEAN SCORES ANALYZED WITH SINGLE FACTOR ANOVA OF MALES & FEMALES

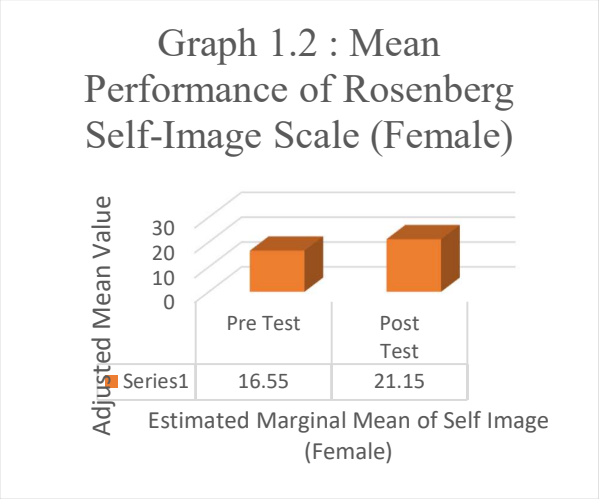
*Significant at .05 level

5. RESULT

To find out the significance of the difference between the pre-test and post-test mean of psychological variables pertaining to the self-image of male and female hearing-impaired students, means were computed and data about this have been presented in Table 1**5.**

Variable	Pre Test	Post Test
Self-image (Male)	15.45	19.8
Self-image (Female)	16.55	21.15





DISCUSSION : This study investigated the psychological effects of martial arts training on hearing-impaired adolescents, exploring differences between males and females. The results of this study provide valuable insights into the potential benefits of martial arts training for hearing-impaired adolescents.

The findings of this study suggest that martial arts training can have a positive impact on the psychological well-being of hearing-impaired adolescents. Specifically, the results indicate that martial arts training can lead to significant improvements in self-image and emotional regulation. The results of this study also highlight significant differences in psychological outcomes between male and female hearing-impaired adolescents. Specifically, the findings indicate that female participants experienced greater improvements in self-image compared to male participants post-test.

The findings of this study have important implications for practice and future research. Specifically, the results suggest that martial arts training can be a valuable adjunctive therapy for promoting psychological well-being in hearing-impaired adolescents. Furthermore, the findings highlight the need for future research to explore the specific needs and experiences of hearing-impaired adolescents in martial arts training.

This study has several limitations that should be acknowledged. Firstly, the sample size was relatively small, which may limit the generalizability of the findings. Secondly, the study relied on self-report measures, which may be subject to biases and limitations. Future studies should aim to address these limitations by using larger sample sizes and multiple methods of data collection.

6. CONCLUSIONS :

There was a significant improvement in the self-image of male and female hearing-impaired students due to the kung fu training program. The findings indicate that female participants experienced greater improvements in self-image compared to male participants post-test.

REFERENCES : Thesis & Books

Lash (2021) "deaf or hearing: a hearing impaired individual's navigation between two worlds"

Musonda (2022) "assessing challenges faced by students with hearing impairment in the writing of standard english: a case study zambia".

Nadgeri Bageshri (2020) Effect of Resistance Training on Strength of Upper Limbs of Wheelchair Basketball Players

Nadgeri Bageshri (2022) Effect of Shaolin Kung Fu Martial Arts Training on Selected Bio-Motor and Psychological Variables of Hearing-Impaired Student

Kadhiravan V, (2020). Effect of Functional Fitness Training Combined With Yogic Practices on Selected Physical and Physiological Variables of Homemakers

Brown D. (2012) The Social Practice of Self-Defense Martial Arts: Applications for Physical Education.

Marwan Eldeep (2002) How to Learn Kung Fu Step-by-Step: learning martial arts.

Turna, (2020). The Effects of Functional Training on Some Bio-motor Abilities and Physiological Characteristics in Elite Soccer Players

Hoffman, Jay, (2002). Physiological Aspects of Sports Training Performance, Champaign Illinois: Human Kinetics Publishers Inc.

Johnson, Barry L. and Nelson, Jack K. (1988). Practical Measurements for Evaluation in Physical Education, (3rd ED), Delhi: Surjeet Publications.

Kirtani, Reena. (2003). Physical Fitness for Health, Delhi : Vivek Thani Publications.

N Bobby, (2023) The Influence of Functional Training on Bio-motor Skills In Tennis Players

Cochran, Sean and Tom House. (2000). Stronger Arms and Upper Body, Champaign Illinois: Human Kinetics Publishers Inc.

Dick, Frank W. (1980). Sports Training Principles. London: Kimpones Publishers, p.87.

Dintiman, George Blough, et al., (1998). Sports Speed. (2nd ED), Champaign Illinois: Human Kinetics Publishers Inc.

MCardle, W.D., (2001). Exercise physiology : energy, nutrition, and human performance. (5th ed). Philadelphia: Lippincott Williams & Wilkins, p.1158.

Paul Beashel and John Taylor. (1997). The world of Sport Examined, Australia: Thomal Nelson and Sons Ltd.,

Wilmore, J.H. and Costill, D.L., (2005). Physiology of Sport and Exercise. (3rd Edition). Champaign, IL: Human Kinetics.

Zatsiorsky, Vladimir M., (1995). Science and Practice of strength Training, Champaign Illinois: Human Kinetics Publishers Inc.

Baechle, T.R. and Earle, R.W. (2000). Essentials of Strength Training and Conditioning, 2nd Edition, Champaign, IL: Human Kinetics.

Adam King B.S., et al., (Apr, 2009), "**Four-Week Specific Training to Increase Speed, Power and Agility**", Completed at Pro Sport Training and Rehab., Inc. Rolling Meadows, IL,

Fry, R., Morton, A. and Keast, D. (1992). "**Periodization of Training Stress: a review**". Canadian Journal of Sport Science, 17 (3), pp.234-40. 140

REFERENCES : Websites & Links

https://www.martialjournal.com/book-review-shaolin-kung-fu/

https://www.thefightersgear.com/southern-shaolin-kung-fu/

https://www.thefightersgear.com/southern-shaolin-kung-fu/

http://www.shaolinacademy.net/lm_basic%20skill

https://www.neuropedicswellness.com/for-clients/2017/9/29/move-well-move-often

https://learnshaolinkungfuinchina.com/shaolin-kung-fu-techniques-and-training-in-china/

https://www.ncbi.nlm.nih.gov/pubmed/28714773

https://www.ncbi.nlm.nih.gov/pubmed/21349072

https://positivepsychology.com/self-concept-questionnaires-activities/

https://www.statology.org/tutorials/

https://www.statology.org/one-sample-t-test/

http://www.scielo.br/scielo
https://www.ncbi.nlm.nih.gov
www.hindawi.com
https://doi.org
https://www.topendsports.com
https://www.bodybuilding.com
https://www.emedicinehealth.com/
https://www.graphpad.com/quickcalcs/ttest2/
http://per4max.com/sportchairs/thunder/.
https://www.ahajournals.org/
http://smileportfolio.blogspot.com/
https://www.thefightersgear.com/shaolin-kung-fu/
https://www.britannica.com/sports/kung-fu
https://pdfs.semanticscholar.org/
https://digital.library.txstate.edu/
https://www.youtube.com/

Cite this article:

Bageshri Nadgeri, 2025. Psychological effects of martial arts training in hearing-impaired adolescents: a comparative investigation. *JES Bulletin*, **3**(2):178-183