

EFFECT OF 16-WEEKS SELF-TALK INTERVENTION FOR IMPROVING SELF-CONFIDENCE AND PERFORMANCE AMONG ARTISTIC GYMNASTICS PLAYERS

Abhishek Tripathi¹ (0000-0002-7372-3977), Lalit Sharma² (0000-0002-3262-6708), Meenakshi³* (0000-0001-9490-6740), Shivam Thapa⁴ (0000-0003-3210-9046)

|--|

Abstract:

Introduction: Self-talk is what we think every day, every time to ourselves related to the work or anything which actually influence our thinking and later on becomes our attitude. Self-talk has a significant influence on how you feel and what you do. It can be positive and motivating, or it can be negative and undermine your confidence

Objectives: The study's goal was to assess how Self-Talk intervention affected self-confidence and performance of artistic gymnastics players.

Methods: 30 Gymnasts (N=30), 10 male and 20 female aged between 8 to 17 years (M= 12.2 years of age) participated in the study. Intervention program was administered for 16 sessions with two 10-minute sessions per week. The research was divided into three stages (Educational phase, Training phase and Practice Phase). An interview was conducted at the end of the training. The qualitative data was transcribed and analyzed using NVivo (trail version) on the basis of the interviews.

Results: Result shows that the most prominent negative statement was framed as "*I will fall and get hurt*" and later these negative statements were converted into positive statements, analysis further revealed that the self-talk has changed their self-confidence by speaking to themselves in a positive statement such as "*Self-Talk increased my self-Confidence*". The researcher discovered that negative statements were transformed into positive statements and that self-talk was the most prominent and repeated word.

Conclusions: The researcher concluded that the self-Talk intervention has significantly improved the self-confidence of the Gymnasts.

Keywords: Self-talk, Gymnast, Self-confidence, Gymnastics, Performance

^{1,4}Department of Physical Education and Sports Sciences, University of Delhi, Delhi, INDIA.

²Professor in IGIPESS, University of Delhi, Delhi, INDIA.

³*Assistant Professor in IGIPESS, University of Delhi, Delhi, INDIA.

²Academic secretary, Sports Psychology Association of INDIA

³*Member, Sports Psychology Association of INDIA

*Corresponding Author: Meenakshi

*Assistant Professor in IGIPESS, University of Delhi, Delhi, INDIA.

*Member, Sports Psychology Association of INDIA, Email Id: Meenakshi_igi@yahoo.co.in

DOI: 10.48047/ecb/2023.12.si5a.0473

1. Introduction

In the current frantic world when everyone is racing about attempting to satisfy everyone else's demands, their own objectives, or just to make the most of themselves, it is important for people to believe in themselves. Due to the constant pressure to perform well in one's field of study, profession, job, or other effort, it is imperative to develop confidence inside oneself in order to survive in this competitive atmosphere. Sports success is something that many people strive for. Sports performers are always being sought for by coaches and athletes. Researchers must look at the psychological aspects such as cognition, motivation, and emotion that affect athletic performance behaviours in order to enhance them (Feltz, Short, & Sullivan, 2008).

Self-confidence may be the most significant selfperception in sports psychology. Self-confidence is described as a trait that is universal and steady and has limited use in athletics. The athlete must have faith in their capacity to succeed in a competitive setting; for instance, Tiger Woods would have faith in his ability to sink the go-ahead putt on the 18th green at Augusta during the Masters of Golf. He could be reluctant to attempt the game's last penalty shot, though. Self-efficacy is a subset of situational self-confidence, or the conviction that one can succeed in a certain circumstance. The most persistent distinction between elite and less successful performance is that top athletes are more successful.

Theories Self-efficacy and athletic performance are intimately connected, according to Bandura (1977). Self-efficacy rises in tandem with performance gains (Silva & Stevens, 2002). As a result, performance reductions restrict both training and performance (Silva & Stevens, 2002). Previous experiences have an impact on expectations of efficacy. A high level of performance is considerably more possible if you have confidence in your talents. Efficacy has a significant explanatory power when comparing performance variations (Silva & Stevens, 2002). Previous experiences have an impact on expectations of efficacy. A high level of performance is considerably more possible if you have confidence in your talents. Efficacy has a significant explanatory power when comparing performance variations (Silva & Stevens, 2002).

Gymnastics requires a high level of self-efficacy. The performer must believe in their ability to perform. The performer must have confidence that they can provide a strong performance when needed (Gill, 2002). In gymnastics, it is crucial to boost self-efficacy for each piece of apparatus because efficacy might vary between them. Low levels of self-efficacy may first spread from task to task and have a detrimental effect on the entire performance. High levels of efficacy will therefore boost performance at first and should be kept up throughout the tournament. Rarely does a single psychological element—like many others—work by itself. Decreases in self-efficacy may affect crucial performance factors including arousal, tension, and anxiety, which might have a domino effect on performance.

Self-talk is generally seen as a "key to cognitive control" (Zinsser, Bunker, & William, 1998) and is characterized as happening whenever one thinks about anything (Bunker, Williams, & Zinsser, 1993). Benefits of self-talk on performance have been shown as a result, many mental skills program incorporate self-talk (Kendall, Hryckaiko, Martin, Kendall, 1990). The improvement in & performance can be attributed to a variety of cognitive functions. countering negative statements, remembering various types of goals, or even placing the right amount of attention on particular performance elements (either physically or mentally, depending on the content of the selftalk). Your self-confidence increases as you navigate the challenges of modern life and seek to do anything. It boosts your self-assurance. Sometimes things go wrong and one has too high of expectations of oneself, causing unfavorable outcomes in life and demonstrating an excessive degree of confidence. Thinking that you can typically reach your goals in the future is a positive attitude. Self-confidence is defined as having faith in oneself.

Although most people often conceive of "selfefficacy," "self-esteem," and "self-confidence" as two labels for the same thing, for psychologists who study them, the terms have slightly different meanings (Druckman & Bjork, 1994; Oney, & Oksuzoglu-Guven, 2015). Self-efficacy, selfsteam, and self-confidence can occasionally be confused. Knowing the distinctions between the three is necessary for a deeper understanding of self-confidence. Self-esteem is also known as intrinsic regard for oneself. Self-efficacy refers to a person's perception of their ability to shape the circumstances in their own lives. Self-confidence is the quality of believing in oneself.

Over the course of a sporting season, studies have found that performance and efficacy have roughly equal effects on one another (Feltz & Lirgg, 1998), though some have found that efficacy has a greater impact on performance than the other way around (Myers, Feltz, & Short, 2004).

Our young people nowadays are incredibly creative and technologically savvy; they constantly experiment with new things based on their preferences. They seek notoriety, wealth, power, and respect from society, but when they don't receive such things, they lose hope rapidly. They become depressed and lose their self-confidence since they are unable to handle these kinds of events. Contrary to laypeople, children who participate in physical exercise can handle these conditions for a while, but those who participate in sports training are better equipped to handle them. They are adamant that they can succeed. They have a high level of self-confidence and are not easily sidetracked. Athletes who compete in sport report feeling a variety of good (like delight) and negative (like tension and worry) emotions that affect their motivation to participate. When dealing with negative emotions, athletes may have mental (such as concern or dread) and physical (such as injury) challenges. Adult and professional athletes' reactions to these intense feelings and how to cope with the pressures they bring about have been studied (Gould, Udry, Bridges & Beck, 1997).

It has been demonstrated and observed that positive self-talk may significantly impact one's level of confidence and performance. The impact of selftalk intervention in sports training has been demonstrated by several researchers and physical educators. Gymnastics-related sports demand a lot of self-assurance. Many students enroll in gymnastics program all around India, but the majority of them drop out within a year. Parents and gymnasts lose confidence when they witness the more accomplished children competing in different events. The youngster can be handled by coaches in such a manner that they are inspired to do sports and gain confidence.

Parents, instructors, and gymnasts are advised to encourage one another in order to boost selfconfidence. Among the Indian community, it's been seen that we tend to think negatively or have inaccurate impressions of situations or problems rather than trying to find a solution. The human brain has the ability to swiftly embrace new ideas, whether they are good or bad. So, one should maintain a high degree of confidence.

2. Objectives

The objective of the study was to understand the thoughts of the gymnasts related to complex skills

of gymnastics. Researcher wanted to erase their negative thoughts or fear related to complex skills from gymnast's mind with the help of positive selftalk. One should be confident while performing complex skills of gymnastics which includes high level of perfection with dynamic body positions throughout the movement. To increase the level of self-confidence of the gymnasts and help them to achieve higher difficulty level in gymnastics routine performance, the self-talk intervention was given to all the gymnasts.

3. Methods

3.1. Participants

Out of thirty (N=30) Ten male and twenty female Gymnast between the age of 8 to 17 years (M= 12.2 years) participated in the study. Within the 30 Gymnasts, 3 were playing District level, 16 were on State level and 11 Gymnast were playing on National level. The training age of the gymnast were between 3 years to 8 years (M= 4.73). The gymnast was trained till 16 weeks (twice a week) 10 minutes each session. participants were selected from the two private gymnastics academy.

3.2. Data Analysis

Participants need to fill up the training manual and note down their negative thoughts coming to their mind regarding learning a complex skill or the situation during the physical training sessions and again after the PST training session. In the current study, to draw the proper inferences, analysis of the collected data followed by its interpretation has been done. Analysis helps the researcher to understand the meaning of raw data obtained from the subjects. The data is collected to understand the effect of self-Talk intervention on Self-Confidence and gymnastics performance. To analyze the collected data from the training manual and interview, the researcher transcribed the data in word format than analyzed it with the help of the software NVivo (trail version). which is use to analyze qualitative data.

4. Results

In order to find out the results from the raw data, the data was gathered at one place in the form of transcription. the researcher read and analyzed the transcribed data and created codes with the Help of NVivo. The codes that were made in NVivo are Positive self-talk, Negative self-Talk and Selfconfidence. The statements were added in the created codes after careful inspection. The results came in tree map, frequency table and word cloud which is as follows:

Negative Self Talk

In order to understand the negative thoughts before performing any complex skill by the gymnast, the researcher asked the subjects to write down their negative thoughts in the training manual. The data obtained from the training manual is than analyzed in form of word frequency table and word cloud with the help of NNivo (trail version). the result of the analysis is shown in table No.1 and figure No. 1.

Word	Length	Count	Weighted Percentage (%)
Fall	4	36	10.00
Get	3	21	5.83
Able	4	15	4.17
Beam	4	15	4.17
Slip	4	13	3.61
Hurt	4	10	2.78
Bar	3	9	2.50
Scared	6	9	2.50
Hit	3	8	2.22
Backflip	8	7	1.94
Unable	6	7	1.94
Face	4	6	1.67
Hand	4	6	1.67
Bars	4	5	1.39
Landing	7	5	1.39
Body	4	4	1.11
Catch	5	4	1.11
Come	4	4	1.11
Fear	4	4	1.11
Floor	5	4	1.11
Going	5	4	1.11
Grip	4	4	1.11
Hands	5	4	1.11
Handstand	9	4	1.11
Heart	5	4	1.11
Jump	4	4	1.11
Leg	3	4	1.11
Rotate	6	4	1.11
Thought	7	4	1.11
Twist	5	4	1.11
Back	4	3	0.83
handspring	10	3	0.83
High	4	3	0.83
Land	4	3	0.83
Parallel	8	3	0.83
Afraid	6	2	0.56
Circle	6	2	0.56
confidence	10	2	0.56
Difficulty	10	2	0.56
Direction	9	2	0.56
Feet	4	2	0.56
Front	5	2	0.56
Heigh	5	2	0.56
Height	6	2	0.56
Injured	7	2	0.56
Lose	4	2	0.56
Might	5	2	0.56
Open	4	2	0.56
Slow	4	2	0.56
Wrong	5	2	0.56

Table n	o. 1: Word t	frequency of	f Negative thought
37 1	T 41	C (W/ 1/ 1D

As per Table 1 frequency table of negative thought it is clear that the most repeated words were Fall, get, Able, beam, slip, hurt, slip hurt, bar, scared, hip, backflip, unable, face, hand, bar, landing, body, catch, come, fear, floor, going, grip which *Eur. Chem. Bull.* **2023**, *12*(*Special Issue 5*), *5551* – *5558* means gymnast had negative thought of falling down from the apparatus like Balancing Beam, Parallel bars, and Uneven Bars. They also had fear of falling down flat on their face due to missed landing.



Figure 1. Word cloud of Negative thought

In figure 1. word cloud of negative thought, it can be seen that the most repeated word was fall, get, beam, slip, scared, hit, bar, backflip unable, catch, rotate which means that the fall during the landing from the different apparatus was the main negative thought in gymnast's mind. They also faced problem in slipping hands from the Balancing beam and had difficulty to catch or regrasp the bar. Problem of Body Rotation in the air during backflip and back salto was also a negative thought in gymnast's mind.

As per table No. 1 & figure No. 1 researcher came on this conclusion that gymnast has fear of fall during landing and they were scared of slipping hand from the beam and bar. They were also scared of getting hurt. Some of the statements of the gymnasts are as follows:

Subject No. 1, 2, 5, 34, 36 stated that "I will get hurt if I will fall"

Subject No. 14, 16, 19, 20 said "my hand will slip and I will fall down on my face"

Subject No. 9, 10, 11, 13, replied "I have fear of slipping hands"

Subject No. 26, 27, 28, 29, I will fall on the beam and get hurt

Positive Self Talk

After collecting data of negative thoughts researcher gave training of positive self-talk to increase the self-confidence of the gymnast. Researcher instructed the gymnast to write down their feeling after the training. Statements were recorded in the training manual. The data obtained from the training manual is than analyzed in form of word frequency table and word cloud with the help of NVivo (trail version). the result of the analysis is shown in table 2 and figure 2.

	2. mequent	y table 0	r positive sen-raik
Word	Length	Count	Weighted Percentage (%)
Come	4	7	3.24
Self	4	7	3.24
Told	4	7	3.24
Confidence	10	6	2.78
Happen	6	6	2.78
Nothing	7	6	2.78
Better	6	5	2.31
Confident	9	5	2.31
Just	4	5	2.31
Keep	4	5	2.31
Tight	5	5	2.31
Try	3	5	2.31
Body	4	4	1.85
Drills	6	4	1.85
Get	3	4	1.85
Hurt	4	3	1.39
Trying	6	3	1.39
Achieve	7	2	0.93
Bar	3	2	0.93
Believe	7	2	0.93
Capable	7	2	0.93
Catch	5	2	0.93
Definitely	10	2	0.93
Fall	4	2	0.93
Jump	4	2	0.93
Land	4	2	0.93
Landing	7	2	0.93
Strong	6	2	0.93
Talk	4	2	0.93
Tried	5	2	0.93
Visualize	9	2	0.93

Table 2. frequency table of positive self-Talk

Table No. 2 frequency table of positive self-talk shows that the most repeated words were come, *Eur. Chem. Bull.* **2023**, *12*(*Special Issue 5*), *5551 – 5558*

self, told, confidence, happen, nothing, better, confident, just, keep, try, tight, body, drills, get,

hurt, trying achieve, bar believe, capable, catch, definitely which describes that the gymnast get benefited after the training of self-talk and said, come on you can do it, nothing will happen, you will not get heart. Try to do drills to keep your body tight and you can catch the bar.



Figure 2. word cloud of positive Self-Talk

Figure No. 2 word cloud of positive self-talk shows that the most repeated words were come, self, confidence, nothing, told, happen, better, tight, just,

Self Confidence

 Table No. 3 frequency table of Self confidence

Word	Length	Count	Weighted Percentage (%)
Confidence	10	27	10.27
Self	4	17	6.46
Increased	9	12	4.56
Fear	4	7	2.66
Now	3	7	2.66
Feel	4	6	2.28
Perform	7	6	2.28
Positive	8	6	2.28
Scared	6	6	2.28
Skills	6	6	2.28
Talk	4	6	2.28
Boosted	7	5	1.90
Imagery	7	5	1.90
Improved	8	5	1.90
Lot	3	5	1.90
Mental	6	5	1.90
Performing	10	5	1.90
Confident	9	4	1.52
Helped	6	4	1.52
Less	4	4	1.52
Level	5	4	1.52
Started	7	4	1.52
Better	6	3	1.14
Different	9	3	1.14
Elements	8	3	1.14
Gain	4	3	1.14
Нарру	5	3	1.14
Much	4	3	1.14
Think	5	3	1.14
Without	7	3	1.14
Also	4	2	0.76
Coach	5	2	0.76
Freely	6	2	0.76
Increases	9	2	0.76
it'	3	2	0.76
New	3	2	0.76
Skill	5	2	0.76
Things	6	2	0.76

keep, better, body, drills, Confident which means that they get confidence and told to themselves that "come on you can do it, nothing will happen" just keep the body tight and do drills to be more confident.

Researcher concluded on the basis of Table No. 2 and figure No. 2 which indicates that after the selftalk training the gymnast felt and said to themselves "come on you can do it, nothing will happen. Some of the statements are given below who justifies the conclusion of the researcher:

Subject No. 1 & 2 replied "I said to myself I can do it".

Subject No. 6, 16, 19 stated that "come on you can do it"

Subject No. 6, 16, 26, 27, 28 replied with the statement "nothing is going to happen; you can do this"

Table No. 3 shows that the most repeated words Confidence, self, increased, fear, now, feel, perform, positive, talk, skill, boosted, imagery, improved, lot, mental, performing, confident, helped, less, level, started, better, different, elements, gain, happy which means Confidence of the subjects increased. Feeling of fear in performing skills is less. Imagery power and Selftalk improved their confidence.



Figure No.3- word cloud of self confidence

Figure No. 3 shows that the most prominent words are confidence, self, increased, boosted, positive, helped, performing which means Self-talk technique of PST training helped in boosting selfconfidence of the subjects and also improved performance.

5. Discussion

According to the findings of the study, it was clear that self-talk training has boosted their Self-Confidence. Positive self-talk has improved the level of skills and decrease the level of fear during skill learning. Negative emotional has been defined as the frustration and negative feelings one has towards injury. Subjects started feeling happy during training. They started performing better than before. Hatzigeorgiadis, A. et. al. 2011, found during his study that interventions including selftalk training were more effective than those not including self-talk training. The results of this study established the effectiveness of self-talk in sport, encourage the use of self-talk as a strategy to facilitate learning and enhance performance. Hatzigeorgiadis, A. et. al. 2014, again found Selftalk interventions effective for enhancing sport task performance. Most of the Gymnast found shy in nature and so that they were unable to communicate their thoughts, feelings and views to the other people. Conley, S. L., et. al. (2019) proven in her study on 'An assessment of the effectiveness of positive self-talk on engagement with feared stimuli and control-related beliefs' that Cognitivebehavioral therapy seeks to assist kids in identifying and analyzing their anxious thoughts and in creating coping mechanisms for anxietyinducing events. incorporating behavioral techniques like role playing and in-vivo exposure.

The association between the treatment condition and the treatment outcome was strongly influenced, according to the results, by anxious negative selfstatements. The gymnast started sharing to their parents about the physical and mental training after the Self-talk intervention. Gymnast's negative thoughts and statements changed due to the selftalk intervention. Raalte, J. L van et. al. (1994) studied on The Relationship Between Observable Self-Talk and Competitive Junior Tennis Players' Match Performances and proved the effectiveness of self-talk intervention. Gymnast were also able to identify their own mistakes. Kinesthetic sense of the Gymnast also improved with the focus. Most of the subjects started noting down the things and started setting their goal for their future

6. Conclusions

On the basis of the result of the study the following conclusions were drown:

- 1.Self-talk intervention has boosted the self-confidence of the Gymnast.
- 2.Level of skills have been improved due to selftalk intervention.
- 3.Level of fear while learning a complex skill reduced.
- 4. Performance of the Gymnasts increased.
- 5.Shy nature of the Gymnast changes into expressive.
- 6. Kinesthetic sense of the Gymnast improved.
- Gymnasts started noting down the mistakes and also started goal setting.

Conflict of interest: The Authors have no conflict of interest in the present study

Sponsorship: No. Sponsorship obtained from any agency.

References:

- 1. Anthony, D. R. (2003). The Ultimate Secrets Of Total Self-Confidence. http://www.totalsuccess-4u.com
- 2. Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. Psycho logical review, 84(2), 191.
- 3. Bunker, L., Williams, J. M., & Zinsser, N. (1993). Cognitive techniques for improving performance and building confidence. Applied sport psychology: Personal growth to peak performance, 2(1), 225-242.
- 4. Druckman, D. E., & Bjork, R. A. (1994). Learning, remembering, believing: Enhancing human performance. National Academy Press.

- 5. Feltz, D. L., Short, S. E., & Sullivan, P. J. (2008). Self-efficacy in sport. Human Kinetics.
- 6. Feltz, D. L., & Lirgg, C. D. (1998). Perceived team and player efficacy in hockey. Journal of applied psychology, 83(4), 557.
- Fournier, J. F., Calmels, C., Durand-Bush, N., & Salmela, J. H. (2005). Effects of a seasonlong PST program on gymnastic performance and on psychological skill development. International journal of sport and exercise psychology, 3(1), 59-78.
- Gould, D., Bridges, D., Udry, E., & Beck, L. (1997). Stress sources encountered when rehabilitating from season-ending ski injuries. The Sport Psychologist, 11(4), 361-378.
- Galanis, E., Hatzigeorgiadis, A., Zourbanos, N., & Theodorakis, Y. (2016). Why Self-Talk Is Effective? Perspectives on Self-Talk Mechanisms in Sport. In Sport and Exercise Psychology Research: From Theory to Practice (pp. 181–200). Elsevier Inc. https://doi.org/10.1016/B978-0-12-803634-1.00008-X
- Haight, C., Moritz, S., & Walch, T. (2020). Time of imagery's effect on performance and self-efficacy in college baseball players. Journal of Imagery Research in Sport and Physical Activity, 15(1). https://doi.org/10.1515/jirspa-2020-0019
- Hatzigeorgiadis, A., Zourbanos, N., Galanis, E., & Theodorakis, Y. (2011). Self-talk and sports performance: A meta-analysis. In Perspectives on Psychological Science (Vol. 6, Issue 4, pp. 348–356). SAGE Publications Inc. https://doi.org/10.1177/1745691611413136
- Hatzigeorgiadis, A., Galanis, E., Zourbanos, N., & Theodorakis, Y. (2014). Self-talk and Competitive Sport Performance. Journal of Applied Sport Psychology, 26(1), 82–95. https://doi.org/10.1080/10413200.2013.79009 5
- Marshall, E. A., & Gibson, A. M. (2017). The Effect of an Imagery Training Intervention on Self-confidence, Anxiety and Performance in Acrobatic Gymnastics - A Pilot Study. Journal of Imagery Research in Sport and Physical Activity, 12(1). https://doi.org/10.1515/jirspa-2016-0009
- 14. Ming, S., & Martin, G. L. (1996). Singlesubject evaluation of a self-talk package for improving figure skating performance. The Sport Psychologist, 10(3), 227-238.
- Myers, N. D., Feltz, D. L., & Short, S. E. (2004). Collective efficacy and team performance: A longitudinal study of collegiate

football teams. Group Dynamics: Theory, Research, and Practice, 8(2), 126.

- Oney, E., & Oksuzoglu-Guven, G. (2015). Confidence: A critical review of the literature and an alternative perspective for general and specific self-confidence. Psychological reports, 116(1), 149-163.
- Papaioannou, A., Ballon, F., Theodorakis, Y., & Auwelle, Y. Vanden. (2004). COMBINED EFFECT O F GOAL SETTING AND SELF-TALK IN PERFORMANCE OF A SOCCER-SHOOTING TASK',[^]. In O Perceptual and Motor Skills (Vol. 98).
- Papaioannou, A., Marsh, H. W., & Theodorakis, Y. (2004). A multilevel approach to motivational climate in physical education and sport settings: An individual or a group level construct?. Journal of sport and exercise psychology, 26(1), 90-118.
- Raalte, J. L. Van, Brewer, B. W., Rivera, P. M., & Petitpas, A. J. (1994). The Relationship Between Observable Self-Talk and Competitive Junior Tennis Players' Match Performances. In JOURNAL OF SPORT & EXERCISE PSYCHOLOGY (Vol. 16).
- Silva III, J. M., & Stevens, D. E. (Eds.). (2002). Psychological foundations of sport. Benjamin-Cummings Publishing Company.
- Van Raalte, J. L., Brewer, B. W., Rivera, P. M., & Petitpas, A. J. (1994). The relationship between observable self-talk and competitive junior tennis players' match performances. Journal of Sport and Exercise Psychology, 16(4), 400-415.
- Zinsser, N., Bunker, L., Williams, J. M., & Williams, J. M. (1998). Applied sport psychology: personal growth to peak performance. Cognitive techniques for building confidence and enhancing performance, 291.