

The Effect of Mental Training Skills Program on Self-Compassion and Mindfulness

Aida al awamleh¹, Taiysir Mansi¹ & Ziad Ermeley²

¹ Department of Instruction and Supervision, The University of Jordan, Jordan

² Department of Health and Recreation, The University of Jordan, Jordan

Correspondence: Aida al awamleh, Department of Instruction and Supervision, The University of Jordan, Jordan.
E-mail: aidakaldi@hotmail.com

Received: May 13, 2014 Accepted: July 15, 2014 Online Published: August 15, 2014

doi:10.5539/ass.v10n18p90

URL: <http://dx.doi.org/10.5539/ass.v10n18p90>

Abstract

Mental skills and physical skills are important for success; they are blocks of the complete college students that produce outstanding sports performances. The purpose of this study was to examine the effect of mental training skills program on self-compassion and mindfulness. The sample consisted of 32 undergraduate female students from the University of Jordan, their ages ($M = 19.2$ years, and $SD = 0.71$). They reported self-compassion scale and mindfulness Questionnaire, after 12 weeks of intervention program.

Methods: Self-compassion (SCS) Neff (2003) Scale and Mindfulness Questionnaire FFMQ (Baer et al., 2006). Arabic version was used to assess self-compassion and mindfulness.

Results indicated that female students who used mental training program in connection with their gymnastics practice reported significant increases in self-compassion and mindfulness.

Keywords: mental training program, self-compassion, mindfulness, gymnastics

1. Introduction

The mental training focuses on the positive aspect of athlete's mental performances, physical abilities, and preparation skills. The mental training program is based on the idea that the pictures in the person mind have real power, the person can create his own reality with his images-how he "see" himself and his abilities, whether positively or negatively (Porter, 2003).

Recently, many coaches used mental training programs to enhance sport performance, because they believe that these programs are an important aspect of life and for successful athlete. Mental training of motor skills leads to changes in brain circuitry and behavior, just as physical training (Slager et al., 2011). Research has supported that mental-skills training can prepare athletes for competition and improve psychological well-being such as improving managing anxiety (Mamassis & Doganis, 2004), focus (Orlick & Partington, 1988), managing emotions (Lazarus, 2000), dealing with pressure (Beilock et al., 2001). Frey et al., (2003) found relationships between use of mental skills and perception of success in both environments. The common Mental training techniques in use in sport include, goal setting to help gymnasts enhance motivation and to learn new techniques and experience success, imagery which can help students improve concentration, gain emotional control and enhance the development, positive self-talk which help to eliminate negative self-talk so focusing attention on now and encourage the gymnast to maintain the effort and build confidence. There is a relationship between self-compassion and mental health research has found that self-compassion has positive effects on mental health (Neff, 2003).

Neff (2003) defined self-compassion as composed of three main components; self-kindness, a sense of common humanity and mindfulness. Self-kindness (self-understanding rather than harsh judgment or self-criticism), a sense of common humanity (viewing oneself as part of the larger human experiences rather than isolated), and mindfulness (accepting painful emotions and thought while not over identifying with them) (Cormier, Nurius, & Osborn, 2013).

Orsillo and Roemer (2011) indicated that self-compassion starts with assumption that all humans are valuable and worthy regardless of their physical characteristic or achievement. Crocker & Canevello, (2008) explain that

Self-compassion is very important to our life, because it helps people deal with life struggles and it can provide social support and encourage interpersonal trust with their roommates. *Self-compassion* has been linked to enhanced happiness, optimism, positive effect, love of learning (Neff & Lamb, 2009). Research by Breines and Chan (2012) found that self-compassion lead to better performance and enhance motivation, and it enhances well-being (Gilbert & Irons., 2005).

Researchers found relationship between emotional intelligence and self-compassion (Heffernan et al., 2010; Hollis-Walker & Colosimo, 2011). The emotional intelligence has an effect in physical health, and mental, and academic performance (Mayer et al., 2008; Mayer et al., 2002; O'Boyle et al., 2010).

As stated above, self-compassion has three main elements; Mindfulness is one of those elements it means paying attention to your current experience instead of focusing on the past or the future (Thomas, 2011). It is a way to improve the quality of life and increases ability to be aware. There are five facets of mindfulness they are observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience (Baer et al., 2006).

Mindfulness is important for sport performance (Taylor & Wilson, 2005). It can increase awareness (Erisman & Roemer, 2010), and it can enhance academic performance (Parker et al., 2004; Jaeger, 2003).

Previous research indicates that sports such as Pilates and taiji quan training have beneficial effects on mental characteristics (Caldwell et al., 2009). Participants in yoga, meditation-based programs showed increased on mindfulness (Carmody, 2008; Oman et al., 2008; Shapiro et al., 2008).

Mental training techniques can help students to enhance their self-confidence and concentration and reduce the negative effects of anxiety. Relaxation such as deep breathing, meditation will help to drop the brain wave frequency to a healthier state (Institute of Human Technology, 2009). Vealey (2007) has suggested that mental-skills training are the learning and implementation of traditional cognitive behavioral techniques "with the objective of assisting sports participants in the development of mental skills to achieve performance success and personal well-being" (p. 287).

Mental-skills training program is designed to improve students' performance in gymnastics through cognitive strategies (Goal setting, Imagery, Positive Self-Talk, and Relaxation).

There has been limited research involving the impact of mental skills training and assessing its effect on self-compassion and mindfulness through participation in sport particularly in gymnastic (to our knowledge). The purpose of this study was to investigate the impact of Mental-skills training program on self-compassion and five facets mindfulness. We hypothesized that mental training program would report the greatest scores in self-compassion and mindfulness.

2. Materials and Methods

2.1 Participants and Procedure

The subject sample consisted of thirty-two female undergraduate students from the University of Jordan (N = 32, M age = 19.2 years and SD = 0.71). The participants were enrolled at educational gymnastics skills program courses (2) in the 2013-2014 academic years first semester (artistic gymnastics). The intervention group received 60-minute exercise classes three times per week for 12 weeks.

2.2 Procedures and Research Instrument

Research variants were the Mental-skills training program as independent variable the dependent variable for the current study was self-compassion and mindfulness.

Self-compassion was measured using the Self-Compassion Scale (SCS) developed by Neff (2003). Arabic version that has a 26 items and this measure consists of six subscales. The Self-compassion sub-scales are self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. In order to demonstrate the reliability of the Arabic version of self-compassion scale, the coefficient of internal consistency was used to determine the reliability of (SCS) Arabic version. Results demonstrated that the self-compassion scale has good reliability indicators it was (.81) and the test-retest reliability was (.82) after 3-weeks interval was used.

The Five Facet Mindfulness Questionnaire (FFMQ) was used to assess mindfulness. (FFMQ) is a 39-item higher scores indicate greater levels of mindfulness (Baer et al., 2006). The five facets are observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience. A coefficient of internal consistency was used to determine the reliability of (FFMQ) Arabic version. A coefficient of internal consistency was used to determine the reliability of (FFMQ) Arabic version. The results of internal consistency of (FFMQ)

was (.70) and the test-retest reliability was (0.80) after 3-weeks. The gymnastics program and mental training skills were designed by the first author. The purpose of gymnastics program was to improve basic gymnastics skills such as, cartwheel, round off, front handspring and front handspring on vault, these skills is based on the gymnastics level (2) syllabus. The authors used the Mamassis & Doganis (2004) and (Vealey, 2007) studies as a guide the mental-skills training consisted of three different psychological skills: goal setting, positive thinking and self-talk, imagery and visualization. Our program included self-talk, goal setting, imagery, relaxation; these are considered the basic techniques in PST (Vealey, 2007).

The program consisted of one 60-minute session 3 times per week for the gymnastics group during this time, the students learned gymnastics skills and emphasizing the importance of mental-skills in gymnastics.

Each of mental skills self-talk, goal setting, imagery, relaxation was presented over a total of 12 weeks for the intervention program.

The students were taught the importance of self-talk and its link to negative thoughts. They have to write for example “what they say to themselves before a work out, positive, negative”. They have to focus on the positive aspects of their performances, they told that focusing on poor past performances can cause them to have poor marks, so self-talk can help students to focus on the positives of the situation, don’t blame themselves for mistakes. Students became aware of their negative thoughts, comments, during and after practice they can focus on the present student had to perform gymnastics skills such as cartwheel, round off and front handspring.

Goal setting: it helps students to recognize their success more regularly, the aim of goals is to focus student attention and specific realistic performance goal. They have to write there goals’ for example “Goals they wish to obtain in their gymnastics class” after 30 day goals, after 2 months goals.

Imagery and visualization: Imagery is a part of sport psychology skills, mental skill during the imagery and visualization sessions, the students showed a video for cartwheel, round off and front handspring, After showing the videos the students were to visualize themselves executing their techniques in cartwheel, round of and front handspring, during 15 minutes before every practice, then students discussed how their visualization was going.

Relaxation: the mental relaxation techniques change students focus of attention and can aid them in reducing tension and anxiety; they practice relaxation with visualization throughout their practices, doing complete breathing, focusing in their attention on the muscles on their head and neck during the last 10 minutes that comprised the cool down session.

3. Results

Statistical analyses were conducted using the (SPSS). To address the question related to the effects of a mental training skills program on self-compassion and mindfulness. T-test analyses were used to find the differences between (32) female students before and after (12) weeks mental training program.

According to the t-test analyses results, there were significant differences between pre and posttest on self-compassion questionnaire as seen in Table 1.

Table 1. Mental training skills program on self-compassion mean scores (M) and standard deviations (SD) for female pre and posttest

Self-Compassion items	Pre	Post	t	Sig
SK	15.19(±4.01)	17.09(±4.47)	6.33	.000
SJ	9.11(±2.44)	11.09(±2.11)	4.45	.000
CH	8.13(±1.03)	12.46(±1.09)	6.78	.000
I	10.48(±2.3)	13.22(±3.25)	4.89	.000
M	13.69(±2.40)	16.36(±2.41)	5.67	.000
OI	11.11(1.33)	11.8(±2.3)	1.45	.70
SC ^a	67.71(±7.74)	82.02(±7.73)	7.66	.000

SK = Self-Kindness, SJ = Self-Judgment, CH = Common Humanity, I = Isolation, M = Mindfulness, OI = Over-identification, SC^a = total score of Self-Compassion

Significant differences were observed in total score of Self-Compassion ($t = 7.66$; $p = .000$). Furthermore, Self-Kindness ($t = 6.33$; $p = .000$), Self-Judgment ($t = 4.45$; $p = .000$), Common Humanity ($t = 6.78$; $p = .000$),

Isolation ($t = 4.89$; $p = .000$), Mindfulness ($t = 5.67$; $p = .000$) were improved significantly, and no significant was observed on Over-identification ($t = 1.45$; $p = .70$).

Results indicated that there were significant differences between pre and post five facets of mindfulness questionnaire (FFMQ) on observing ($t = 7.201$; $p = .000$), describing ($t = 4.763$; $p = .000$), acting with awareness ($t = 5.794$; $p = .000$), non-judging of inner experience ($t = 5.457$; $p = .000$), only non-reactivity to inner experience ($t = 1.611$; $p = .80$) demonstrated no significant result, see table 2.

Table 2. The effect of mental training skills program on mindfulness mean scores (M) and standard deviations (SD) for female pre and post test

Mindfulness scale	Pre test		Post test		t	Sig
	M	SD	M	SD		
Observing	26.7	5.84	30.0	5.13	7.201	.000
Describing	27.3	4.4	29.0	4.3	4.763	.000
Acting with awareness	24.87	5.67	25.93	5.30	5.794	.000
Non-judging of inner experience	22.29	5.83	24.75	4.74	5.457	.000
Non-reactivity to inner experience	22.20	3.63	22.83	3.11	1.611	.80

4. Discussion

The current study has examined the impact of mental training skills program on self-compassion and mindfulness. The results have shown that female students who participated in the mental training program made significant gains in both their self-compassion and mindfulness. Students exhibited increased self-compassion and mindfulness, according to our results there were significant improvements in total self-compassion (self-kindness, self-judgment, common humanity, isolation, mindfulness). There were no differences found with regard to over-identification element.

Figure 1 shows that the five facets of mindfulness were increased among participants in mental-skills training program in observing, describing, acting with awareness, and non-judging of inner experience. As mentioned above in Table 2, that includes the mean and standard deviation for the five facets of mindfulness for the pre-test and post-test scores.

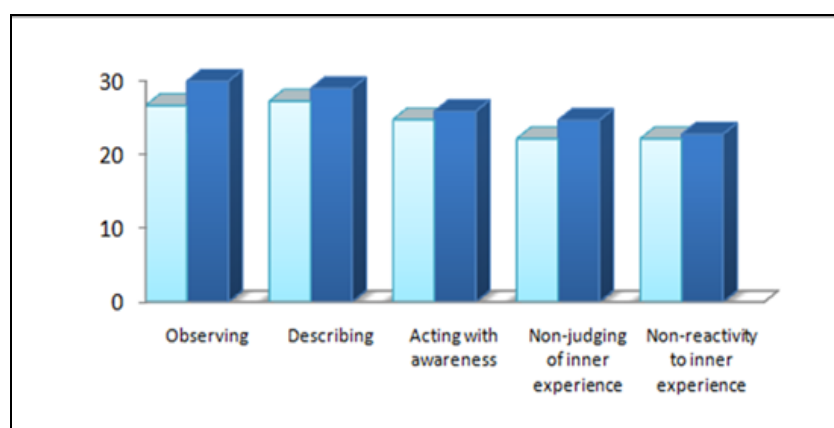


Figure 1. The impact of mental training skills program on five facet mindfulness

These findings are supported by researchers who found that Mental-skills training improves psychological well-being such as improving managing anxiety (Mamassis & Doganis, 2004), focus (Orlick & Partington, 1988), managing emotions (Lazarus, 2000), dealing with pressure (Beilock, Afremow, Rabe, & Carr, 2001) and success Frey et al., (2003). Researchers found strong positive correlations between emotional intelligence, self-compassion and Mindfulness. (Neff, 2003). Others found meditation-based programs can increase mindfulness (Carmody, 2008; Oman et al., 2008; Shapiro et al., 2008).

5. Conclusion

The present study has provided an insight into students about the use of mental skills training techniques in connection with their gymnastics practices. To sum up, it was hypothesized that participants in the mental training skills program will exhibit a significantly increased of self-compassion and five facet mindfulness. The findings of the present study could provide scientific support for the positive effect of mental-skills training on self-compassion and five facet mindfulness. In the future research it would be interest to do longer mental training skills for gymnastics with larger samples and different demographic variables such as (athletes, non-athletes, gender).

References

- Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment*, 13(1), 27-45. <http://dx.doi.org/10.1177/1073191105283504>
- Beilock, S. L., Afremow, J. A., Rabe, A. L., & Carr, T. H. (2001). 'Don't Miss!' The debilitating effects of suppressive imagery on gulf putting performance. *Journal of Sport & Exercise Psychology*, 23(3), 200-221.
- Breines, J. G., & Chen, S. (2012). *Self-compassion increases self-improvement motivation*. *Personality and Social Psychology Bulletin*. <http://dx.doi.org/10.1177/0146167212445599>
- Caldwell, K., Harrison, M., Adams, M., & Triplett, N. T. (2009). Effect of Pilates and taiji quan training on self-efficacy, sleep quality, mood, and physical performance of college students. *J. Bodyw. Mov. Ther.*, 13, 155-163. <http://dx.doi.org/10.1016/j.jbmt.2007.12.001>
- Carmody, J., & Baer, R. A. (2008). Relationships between mindfulness practice and levels of mindfulness, medical and psychological symptoms and wellbeing in a mindfulness-based stress reduction program. *J. Behav. Med.*, 31, 23-33. <http://dx.doi.org/10.1007/s10865-007-9130-7>
- Crocker, J., & Canevello, A. (2008). Creating and undermining social support in communal relationships: The role of compassionate and self-image goals. *Journal of Personality and Social Psychology*, 95, 555-575. <http://dx.doi.org/10.1037/0022-3514.95.3.555>
- Frey, M. M., Laguna, P. L., & Ravizza, K. K. (2003). Collegiate athletes' mental skill use and perceptions of success: An exploration of the practice and competition settings. *Journal of Applied Sport Psychology*, 15(2), 115-128. <http://dx.doi.org/10.1080/10413200305392>
- Gilbert, P., & Irons, C. (2005). Therapies for shame and self-attacking, using cognitive, behavioral, emotional imagery, and compassionate mind training. In self-critical people. *Memory*, 12, 507-516. <http://dx.doi.org/10.1080/09658210444000115>
- Heffernan, M., Griffin, M. T. Q., McNulty, R., & Fitzpatrick, J. J. (2010). Self-compassion and emotional intelligence in nurses. *International Journal of Nursing Practice*, 16(4), 366-373. <http://dx.doi.org/10.1111/j.1440-172X.2010.01853.x>
- Hollis-Walker, L., & Colosimo, K. (2011). Mindfulness, self-compassion, and happiness in non-meditators: A theoretical and empirical examination. *Personality and Individual Differences*, 50(2), 222-227. <http://dx.doi.org/10.1016/j.paid.2010.09.033>
- Institute of Human Technology. (2009). *Home Healing Massage: Hwal-Gong for Everyday Wellness BEST Life Media*.
- Jaeger, A. J. (2003). Job competencies and the curriculum: An inquiry into emotional intelligence in graduate professional education. *Research in Higher Education*, 44(6), 615-639. <http://dx.doi.org/10.1023/A:1026119724265>
- Lazarus, R. S. (2000). How emotions influence performance in competitive sports. *Sport Psychologist*, 14(3), 229-252.
- Mamassis, G., & Doganis, G. (2004). The effects of a mental training program on junior's pre-competitive anxiety, self-confidence, and tennis performance. *Journal of Applied Sport Psychology*, 16, 118-137. <http://dx.doi.org/10.1080/10413200490437903>
- Mayer, J. D., Roberts, R. D., & Barsade, S. G. (2008). Human abilities: Emotional intelligence. *Annual Review of Psychology*, 59, 507-536. <http://dx.doi.org/10.1146/annurev.psych.59.103006.093646>
- Neff, K. D. (2003). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, 2, 85-102. <http://dx.doi.org/10.1080/15298860309032>

- Neff, K. D., & Lamb, L. M. (2009). Self-Compassion. In S. Lopez (Ed.), *The Encyclopedia of Positive Psychology* (pp. 864-867). Blackwell Publishing.
- O'Boyle, E. H., Humphrey, R. H., Pollack, J. M., Hawver, T. H., & Story, P. A. (2010). The relation between emotional intelligence and job performance: A meta-analysis. *Journal of Organizational Behavior*.
- Oman, D., Shapiro, S. L., Thoresen, C. E., Plante, T. G., & Flinders, T. (2008). Meditation lowers stress and supports forgiveness among college students: A randomized controlled trial. *J. Am. Coll. Health*, 56, 569-578. <http://dx.doi.org/10.3200/JACH.56.5.569-578>
- Orlick, T., & Partington, J. (1988). Mental links to excellence. *Sport Psychologist*, 2(2), 105-130.
- Orsillo, S. M., & Roemer, L. (2011). *The mindful way through anxiety: Break free from chronic worry and reclaim your life*. New York: Guilford Press.
- Porter, K. (2003). *The mental athlete: Inner training for peak performance in all sports*. Champaign, IL: Human Kinetics.
- Shapiro, S. L., Oman, D., Thoresen, C. E., Plante, T. G., & Flinders, T. (2008). Cultivating mindfulness: Effects on well-being. *J. Clin. Psychol.*, 64, 840-862. <http://dx.doi.org/10.1002/jclp.20491>
- Slager, H., Davidson, R., & Lutz, A. (2011). Mental Training as a Tool in the Neuro-scientific Study of Brain and Cognitive Plasticity. *Frontiers in Human Science*, 5, 1-7.
- Taylor, J., & Wilson, G. (2005). *Applying Sport Psychology: Four Perspectives* (pp. 117-134). Champaign, IL: Human Kinetics.
- Thomas, A. (2011). *The 1000 Most Important Questions You Will Ever Ask Yourself: That Make Life Work for You*. Exisle Publishing.
- Vealey, R. (2007). In G. Tenenbaum, & R. Eklund (Eds.), *Mental skills training in sport*.
- Vealey, R. (2007). Mental skills training in sport. In G. Tenenbaum, & R. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 287-309). Chichester: John Wiley and Sons
- Weinberg, R. S., & Gould, D. (2010). *Foundations of sport and exercise psychology*. Leeds: Human Kinetics.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/3.0/>).