



# **Yoga Learning and Practice: Perception by Athletes Participating in Competitive Sport**

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## **Abstract**

*One of the significant influences on intrinsic motivation of the learner's continued practice of an activity, is, the learner's perception about the activity. The purpose of this study is to examine the perception of 'yoga' activity by male and female athletes participating in different competitive sports during varied level of competitions. Studies about athlete perception towards yoga and their motivation to learn and practice yoga is limited. This study is important since yoga postures (asanas) and regulated breathing (pranayama) could be applied as one of the self-care methods along with the sport fitness and recovery training for overall sport wellbeing including prevention and effective management of sport injuries.*

**Key words:** yoga, perception, athlete

## **Introduction**

Intrinsic motivation is a behavior that engages learners for their own sake (Deci & Ryan, 1985). Most postures are coordinated muscular movements with breathing. According to Collins (1998), yoga can be considered as a mind-body exercise. Yoga is an ancient practice and follows a teaching through demonstrations and instructions. Many of the yoga forms (Ashtanga, Hatha, Hot, Iyengar, Kundalini, Kripalu etc.) advocate practice of yoga postures with mindfulness or awareness.

There are scientific studies about yoga application to enhance flexibility and muscular strength (Collins, 1998; Schleip R. et al., 2011; Woodyard C, 2011) enhance overall quality of life, (Woodyard. C, 2011), improve cardio respiratory endurance (Tran et al., 2001), improve in mood (Shapiro & Cline, 2008), improve emotional well-being (Hartfiel et al., 2011), pain management (Fransen & McConnell, 2008; Yogitha et al., 2010; Michaelson et al., 2012), reduce perceived stress (Franklin, 2000; Kirkwood et al., 2005; Smith et al., 2007) musculoskeletal and other psycho somatic conditions etc. Yoga has a greater effect on range of motion at the shoulder and hip than static stretching in a healthy population (Pauline M., & Rintaugu, E.G, 2011). Studies also illustrate benefits of yoga practice on cognition (Birdee et al., 2009). However, are there any specific standards established till date in yoga pedagogy that can be considered the most effective, especially for athletes participating in competitive sport?

## **Methods**

### *Model*

Practical yoga demonstration and practice sessions with a combination of yoga postures and pranayama (controlled breathing) were given to two sport teams (football and volleyball) as part of their sport fitness and recovery during their competitive season.

A combination of hatha yoga postures included Dandasana (staff pose), Marichyasana (Marichi's twist), Gomukhasana (cow-face pose), Adhomukhashvanasana (downward faced dog pose), Halasana (plough pose), Baddhakonasana (bound angle pose), SuptaSukhasana (reclined easy pose), Bhujangasana (cobra pose), Shalabhasana (locust pose), Tadasana (mountain pose), Trikonasana (triangle pose), ParivrittaTrikonasana (revolved triangle pose), Virabhadrasana (warrior pose), Shavasana (corpse pose) and pranayama (controlled breathing).

Male athletes (football) were given 28 yoga sessions (20 to 25 minutes per session) over 5 months (average two sessions per week) during their competition season and female athletes (volleyball) were given 25 yoga sessions (20 to 25 minutes per session) spread over 4 weeks (2 sessions per day) during their competitions. Yoga sessions were included after their sport training and fitness training. After the program, the athletes filled their responses in the modified 'Activity Perception Questionnaire' (Deci, Ryan, 1985) to share their feedback specifically about yoga. The questionnaire is a part of the Intrinsic Motivation Inventory (IMI), a multidimensional assessment to assess the participants' subjective experience related to the activity in laboratory experiments.

### Population

Male football athletes (n=12) with mean age 18 to 25 years and female volleyball athletes (n=11) with mean age (17 to 19 years) participated in yoga programs during their competitive season. The male athletes were from geographies of Europe and Africa and the female athletes were from Europe. Participants of both groups had not attended any yoga program earlier.

### Analysis

The responses were compiled on Microsoft Excel and analyzed with the two-sample t-test.

### Results

The means of sub-scales of perceptions of interest, perceived choice and usefulness in male athletes were 4.66 ( $\pm$  SD 1.22), 3.4 ( $\pm$  SD 0.70) and 5.55 ( $\pm$  SD 1.41) respectively. The means of sub-scales of perceptions of interest, choice and usefulness in female athletes were 5.27 ( $\pm$  SD 0.95), 4.39 ( $\pm$  SD 0.62), 5.58, ( $\pm$  SD 1.01). The statistical t-values of the above two samples of unequal variance are presented in table 1. below.

Table 1. *Statistical t-value of the two samples*

Variable (Sub-scales of perceptions)	t-stat	p-value (one-tail)	p-value (two-tail)
Interest	1.12	0.13	0.27
Choice	3.82	0.0004*	0.0009*
Usefulness	0.076	0.46	0.93

\*p<.05

### Discussion

In the current study yoga is considered as a form of exercise for athletes. This view is supported by scientists including Collins (1998). As per one of the principles of Kolb's experiential learning theory (2005), linking the educational experiences to the learner's interests kindles intrinsic motivation and increases learning effectiveness. The athletes participated in a yoga program for the first time in their sport careers. Many of the male and female athletes were pursuing their academic education along with their sport. Yoga was introduced to them for the first time during their sport career. There were no significant differences in the perceived interest and usefulness of yoga as an activity among male and female athletes. The means of the

perceived 'usefulness' was almost equal (mean = 5.55 and 5.58 for male and female athletes). Though, with this small sample size, the perceived 'usefulness' parameter of yoga as an activity could be gender agnostic for athletes participating in competitive sport, further researches in the direction are warranted. The female athletes consider yoga as their perceived choice of activity. Perhaps one of the biases could be because the instructor was a female.

The ways the instructions are framed can influence the students's learning process and performance (Vansteenkiste, Simons, Lens, Sheldon &Deci, 2004). In the current study, the yoga postures were first demonstrated by the instructor and then practiced by the athletes according to their individual capacity. The yoga poses were explained in English (a verbal confirmation from athletes was taken about their understanding) by the instructor. After each session, a verbal feedback was taken from the participants about their experience of the learning.

The perception of participant athletes was important to understand their individual values and beliefs about the yoga program. This view is supported by a qualitative study (J. Case-Smith et al., 2004) that investigated perception of students (n=24) of a 8 week yoga program, in which, taped focus group interviews of select students (n=21) were conducted after the yoga program. Open ended statements and questions were posed to the focus group to elicit their explanations. The study documents that students learned strategies from the yoga program that they used in other situations, to focus and concentrate. The yoga program helped students to feel calm and focused, give them strategies to control their behavior in stressful situations and supported a positive self-esteem. This study recommends that yoga programs in schools to improve social participation and help students to engage in classroom-learning.

In the current study, yoga was given as an exercise to athletes participating in competitive sport and their levels of intrinsic motivation for the same was measured using the sub-scales of participation with interest, usefulness and preferred choice. There is a possibility of 'emotions' to influence an individual's perception after yoga practice. Shapiro & Cline (2004) confirm an immediate effect of mood after yoga practice. Allen and Laborde (2014) illustrate that personality similarity is one potential contributing factor to adherence levels in exercise programs. Since yoga was also given as an exercise to athletes, their personalities could have influenced perception.

### **Suggestions**

In the current study, female and male athletes perceive yoga as useful, however, female athletes find yoga to be their perceived choice more than the male athletes. Since the study is a non-controlled study with a smaller sample size, it is recommended to conduct longitudinal studies applying different yoga pedagogies for athletes participating in competitive sports to measure their perception of yoga activity.

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