

Exercise Dependence Differences Among College Level Female Players And Non-Players

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ABSTRACT

The purpose of the study was to compare the exercise dependence and its sub-variables among college level female players and non-players. A sample of 482 female students (Players=304, Non-players=178) was selected from different colleges of Guru Nanak Dev University, Amritsar, Punjab. The subjects were assessed for exercise dependence with the help of EDS-21 developed by Hausenblaus and Symons (2002). The results revealed that 49.13% female non-players had exercise dependence and 53% players had exercise dependence. Independent sample t-test revealed that players group had significantly higher score in withdrawal effects ($p<0.05$), continuance ($p<0.05$), tolerance ($p<0.05$), lack of control ($p<0.05$), time ($p<0.05$) and exercise dependence ($p<0.05$) than female non-players. In conclusion, players group were found to have more exercise dependent symptoms as compared to non-players college girls.

Keywords: Players, Non-players, Exercise dependence, College level

1. INTRODUCTION

Exercise is a physical activity which is normally considered as a body movement, produce by muscles of the body that are attached with skeletal that results energy consumption which led to increases the heart rate and burn extra calorie in the body and maintaining physical fitness of the individuals (Baranowski et al., 1992; Pate et al., 1995; Morris and Schoo, 2004; PBRC 2009). In particular, exercise is characterized by scheduled, coordinated and repeated movement of the body to enhance or maintain physical fitness (Caspersen et al., 1985). Whereas in past many research studies indicates that excessive exercise may yield harmful effects on both mental and physical health (Furst and Germone, 1993; Kim et al., 2012; Shipway and Holloway, 2010; Veale et al., 1992). Low level of physical inactivity and imbalanced diet among peoples leads to higher risk of many diseases like obesity, heart disease and high blood pressure etc. which may sometimes result death of the people. Regular exercise is generally considered well for mental and physical health of the individual (Pate et al., 1995; Scully et al., 1998; Wolff et al., 2011), it keeps individual mentally and physically fit e.g. regular workout improves cardiovascular health and also improves in depression,

anxiety and mood (Penedo and Dahn, 2005). Whereas exercise dependence is considered as maladaptive behaviour which effects the individual physical health as well as mental health status (Adams, 2001; Blaydon et al., 2002; Heather et al., 2002; Hausenblaus and Giacobbi, 2003). Silva et al. (2013) defined the term “exercise behaviour” refers to a practice of exercises as a compulsive behaviour. Hausenblaus and Symons (2002) opines that exercise dependence is a maladaptive pattern of exercise in which individuals do large amount of exercise that leads to physical injury, less social and vocational activities, increase mental health problems such as depression among individuals. It can cause decline in the physical and sports performances because of overload in exercises. Exercise addiction and eating disorder often occur together and both are consider as behavioural addiction (Davis and Claridge, 1998; Demetrovics and Griffiths, 2012). Some studies indicate that when eating disorder level increases as well as exercise addiction levels are also increases, in the form to control body weight which led to achieve desire body perception. Based on the previous research it was estimated that exercise dependence may affect 2 to 3% up to even 30% of the exercising populations (Thorton and Scott, 1993; Anderson et al., 1997; Slay et al., 1998; Zmijewski and Howard, 2003). In another research study it was found that the prevalence rate of the exercise dependence among runners and triathletes was much higher than previous studies and the rate was as high 25% (Slay et al., 1998) to 52% (Blaydon and Linder, 2002) respectively and also it was higher in competitive and non-competitive athletes (Vega et al., 2016).

The present study, therefore, evaluates the exercise dependence among players and non-players college girls. An attempt has been made to study prevalence and differences with regard to exercise dependence among players and non-players college girls.

2. METHODOLOGY

A survey type study was designed to examine the exercise dependence among college level female players and non-players. Purposive sampling technique was adopted for the selection of subjects. A sample of 482 female students was selected from different colleges of Guru Nanak Dev University, Amritsar, Punjab. Out of 482 female students, 304 were players and 178 were non-players. The age of the subjects were ranged between 18-25 years. All subjects were asked to fill the exercise dependence scale (EDS) developed by Hausenblaus and Symons (2002).

Exercise Dependence Scale (EDS)

The Exercise Dependence Scale (EDS) is a 21 item inventory which was developed by Hausenblaus and Symons (2002), was used to measure dependency of exercise which related to maladaptive exercise behaviour of the individual. EDS had 21 statement based items that described using a 6 point type Likert Scale which was ranging from Never = 1 to Always = 6 (e.g. “I exercise to avoid feeling irritable”). The range of the total score was 3-126. A higher score indicates more exercise dependent symptoms. Participants indicate their responses to each of the 21-items.

Statistical Analysis

Statistical analyses were conducted using SPSS 16.0 (Statistical Package for Social Science Inc., Chicago, Illinois USA). The data was presented as descriptive statistics such as percentages, mean, standard deviation etc. The t-test for independent samples was used to compare the players and non-players college girls. The significance level adopted was 0.05.

3. RESULTS

Table 1: Comparison of exercise dependence and its subscales among players and non-players college girls.

Variables	Players Group (N=304)		Non-Players Group (N=178)		t- value	p- value
	Mean	SD	Mean	SD		
Exercise Dependence	66.99	7.74	61.90	9.78	5.938	0.000*
-withdrawal effects	9.19	2.16	8.03	1.42	6.392	0.000*
-continuance	8.84	2.12	8.20	2.74	2.653	0.008*
-tolerance	10.43	2.07	9.27	3.05	4.506	0.000*
-lack of control	9.92	2.18	9.01	2.49	4.038	0.000*
-reduction in other activities	9.84	2.01	9.50	2.64	1.495	0.136
-time	9.48	1.72	8.58	3.04	3.581	0.000*
-intention effects	9.26	1.32	9.27	1.66	0.038	0.968

* Indicates $p < 0.05$

Table 1 presents the descriptive statistics and t-values on exercise dependence among the players and non-players college level girls. The independent samples t-test revealed that players group were found to have significantly higher average scores on withdrawal effects ($t = -6.392$, $p = 0.000$), continuance ($t = -2.653$, $p = 0.008$), tolerance ($t = -4.506$, $p = 0.000$), lack of control ($t = -4.038$, $p = 0.000$), time ($t = -3.581$, $p = 0.000$) and exercise dependence ($t = -5.938$, $p = 0.000$) than the non-players college girls.

Table: 2 Classification on the basis of Exercise Dependence Levels among the female players and non-player

Variables		Players Group		Non-players Group	
		N	%	N	%
Exercise Dependence	Exercise Dependent	161	53%	87	49.13%
	Non-Dependent	143	47%	91	50.87%

The classification on the basis of exercise dependence among the female players and non-players is depicted in the table 2. In this table exercise dependence was divided into two groups: exercise dependent and non-dependent. In which 53% players had exercise dependent symptoms and 47% players were reported as non-dependent on exercise. Results also revealed that 49.13% non-players were exercise dependent and 50.87% non-players were non-dependence on exercises.

4. DISCUSSION

The main objective of the study was to examine the difference of exercise dependence among college level female players and non-players. In the present study it was found that players significantly higher score in exercise dependence than non-players. The present study showed that 53% players and 49.13% non-player girls had exercise dependence disorders. Similar results were reported by De Moor et al. (2006) as 51.4% regular exercisers were found with exercise dependence. In non-professional athletes, 42% have been estimated to be at the risk

of developing exercise dependence reported by Lejoyeux et al.(2008). In another study, 52% runners had been found exercise dependence as reported by Blaydon and Lindner (2002).Zmijewski and Howard (2003) studied the college students and reported that 45.9% college students were found to have exercise dependence. However, 25% non-athletes were found exercise dependence studied by Slay et al. (1995).In another similar study by Gun and Agirbas (2019), 15.8% female students were found exercise addiction whereas 52.5% subjects were consider for being addicted and no association were found between BMI and exercise dependence. Lichtenstein et al. (2018) found in their study that 38.7% subjects from fitness group and 76.3% subjects with eating disorder had exercise addiction. Baptista et al. (2019) reported based on previous studies that the range of exercise dependence was 1.44% to 51.7%.It can be concluded that exercise dependence is very much prevalence across different sections of population.

5. CONCLUSION

Results revealed that female player showed significantly higher score in the prevalence of exercise dependence scores than non-players. It is now time to strengthen the development of exercise dependence assessment techniques and procedures for the betterment in the field of sports.

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