

Exercise as an addictive behavior: Implications for building awareness in the community

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Abstract

Exercise is being associated with feeling of wellbeing. But it also leads to manifestation of withdrawals on discontinuation. The present study is going to explore the pattern of exercise behavior in Indian context. 2755 (1392 males and 1363 females) subjects in the age group of 18-50 years were approached for administration of sociodemographic data sheet, General Health questionnaire, Exercise addiction inventory 5.8% were at risk category of exercise addiction and gender difference was present same. Psychiatric distress had negative correlation with exercise addiction. 01% show the need for change in the exercise pattern. It has implication for enhancing the mental health professional understanding of exercise addiction.

Introduction

Exercise, which is one of the healthy behaviors, can become an obsessions for exercisers. Indian youth and older group indulge themselves in one or other form of exercise i.e. gym, running, walking, yoga and meditation. It can take the form of addiction. i.e. experiencing craving for exercise, loss of control, compulsion to indulge in exercise, reduction in other activities and consequences in relation to exercise. The effect of exercise deprivation on sleep pattern was seen among subjects reported problems in managing day without exercise for two consecutive days [1]. Later, it got popularized as positive addiction [2]. The exercisers reported the presence of withdrawals i.e. irritability negative mood states whenever denied the opportunity to engage in exercise. 8% of gym users had exercise addiction [3]. Three percent of exerciser's reported that they could not stop exercising [4].

From psychophysiological perspective endorphin hypothesis is the commonly used explanation for understanding exercise addiction, as per the hypothesis, exercise produce endogenous morphine which leads to positive mood states [5]. There is a need to differentiate it from recreational use of exercise. It can be assessed from user motivation (it is a control but pleasurable & rewarding activity); consequences (absence of consequences to user start organizing his/her day around exercise; started using exercise as a method of coping and other psychosocial consequences) and frequency & control (control activity without any consequences to users started engaging in it though it is not required off; loss of control in relation to exercise; no longer a rewarding activity; activity used to avoid withdrawals) [6].

It is emerging area of research for mental health professional to understand the continuum of positive addiction to exercise addiction. There are few empirical studies from Indian context. It is one of its kind first documentation of addictive potential of exercise.

Materials and methods

The study explored the pattern of exercise behavior in the community.

Tools

Socio-demographic profile data sheet: It was prepared by the researcher for collecting socio-demographic information on psychosocial variables related exercise.

Exercise addiction Inventory (EAI): It's a six-item scale. It identifies the people at risk for developing exercise addiction. It got good internal reliability & validity. The EAI has good internal reliability (Cronbach $\alpha = .84$). Its concurrent validity with the Obligatory Exercise Inventory 5 was $r = 0.80$, and with the Exercise Dependence Scale 6 was $r = 0.81$. Its test-retest reliability was $r = 0.85$. Individuals scoring above 24 on the EAI may be classified as "at risk" of exercise addiction. the other group are symptomatic group (13-23) and normal (less than 13) [7].

General health Questionnaire – 5. It is stage screening tool with validity of sensitivity of 86%, specificity of 89%. It has a cutoff point of 3 & above for indicating presence of psychiatric distress [8].

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Procedure

2755 (1392 males and 1363 females) subjects in the age group of 18-65 years, were approached from Urban localities of East Bangalore, Karnataka, India for individual administration of schedule (sociodemographic data sheet, General Health questionnaire, Exercise addiction inventory) using house to house survey. Subjects with inability to read & write English were excluded from the study. The profile of residents in these areas included wider representation of all economic classes. The attempt was made to include equal number of subject in each group(18-20;21-25;26-30;31-35;36-40;41-45;46-50;51-55;56-60;61-65.The minimum number of individuals in each age group were 60.At least 3 attempts were made to develop contact with the residents before they were considered as dropout. The surveyors were holder of post graduate degree in social science and were trained in administration of tools as well as to carry out survey.

Results

36.48 years was the mean age of the sample. 50.5% of the participants were males, 49.5% of them were females. 27.1% were graduates, 10.7% were postgraduates, 24.1% were secondary education, 21.1% were having higher secondary/PU education and 9.9 % were primary educational background. 5.8% of the sample were having technical/ITI education, where as 1.2% were illiterate. 7.5% of the sample was single; 66.7% were married, 5.1% were widowed & divorced or separated category constitutes 0.6%. 9% of unmarried people had exercise addiction, 3.9% of married people reported to have exercise addiction and 9.8% and 2.2% of widowers & divorcees were also reported exercise addiction. Psychiatric distress was present among 7.4%(N=20) subjects at risk for addiction;57.6%(N=156) for symptomatic group and 35.1(N=95) in the normal group. 01% show the need for change in the exercise pattern. The subjects did not report history of substance use or met the current or life criteria for dependence

Table 1 indicates 1743 participants reported to be doing exercise regularly. 102 participants come under at risk for exercise addiction (5.8%) (7.5% males & 3.8 females), 1094 individuals belong to symptomatic group (63%) and 647(37%) were in normal exercise group.

Table 2 indicate the significant gender difference in relation to exercise addiction.

Table 1. Showing frequency of exercise addiction

Exercise addiction Score range	Participants doing exercise regularly	Frequency	Percentage
0-12 (normal)	1743	647	37.119
13-23(symptomatic)		1094	62.765
24-30 (at risk for addiction)		102	5.85

Table 2. Relationship of exercise addiction with gender

Variables	Female			Male			F	Sig.
	Std. Deviation	Mean	N	Std. Deviation	Mean	N		
Exercise addiction	8.714	8.49	1,351	8.262	9.77	1392	61.37	0.00

Table 3. Correlation of exercise addiction with demographic and psychological distress

S. No	Variable & exercise addiction	X ² (chi square)
1.	Age	- 0.079**
2.	Members at home	- 0.059**
3.	Years of marriage	- 0.095**
4.	Psychiatric distress	- 0.077**

** 0.001 level

Table 3 showed the negative correlation of age, members at home, years of marriage and psychiatric distress with exercise addiction.

Discussion

The present study document the presence of 5.8 % having exercise addiction among 1743 subjects in the age range from 18-50 years (Table 1). The presence of exercise addiction varied in relation to gender. It was more among males (Table 2). It was more among unmarried subjects. All the three group of exercise addiction inventory showed the presence of psychiatric distress. It was 5.8% in the at risk for addiction group. Age, number of members in the family, years of marriage and psychiatric distress had negative correlation with exercise addiction (Table 3). These findings is one of its kind in relation to exercise addiction in Indian context.01% expressed the need to change their exercising behaviors. The obtained percentage of at risk for exercise addiction was comparable to international studies in this area. It was estimated from 3% to 5% of the U.S. college youth population [9]. The prevalence in the general population was close to 3% [10]. It was found to be higher among certain groups such as runners [11]. Whereas other studies among college youth report prevalence as high as 21.8–25.6% [12,13]. 42% of the members at a Parisian fitness club met criteria for exercise addiction [14]. The varying percentage could be due to variation in sampling frame used for the respective study. The exercise was reported to be inversely related to anxiety and depression [15,16].

Limitation and Strength: The present study has limitations in form of not having qualitative data to understand the process of addictive use of exercise as well as user knowledge about the addictive potential of exercise. The present study did not have information about the time spent on exercise as well as type of exercise (with supervision and without supervision) they used.

Future studies

The present study has implications for enhancing the mental health professional understanding of exercise addiction and its association with psychosocial variables. It also implies the enhancing community awareness for addictive potential of exercise. There is a need to build up empirical literature in this area to understand the etiology/ conceptualization of exercise addiction

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Disclosure statement

None.

Ethical approval

It was approved by Institute Ethic Committee. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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Compliance with ethical standard

There was no conflict of interest in relation to present work as well as informed consent of the human subjects had been taken prior to inclusion in the study.

Disclosure of potential conflict of interest

Not applicable.

Conflict of interest

Authors of the paper did not have any conflict of interest.

Statement of human right

The studies have been approved by the Institutional and/or national research ethics committee.

Research involving human participants and/or animals

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Statement on the welfare of animals

This article does not contain any studies with animals performed by any of the authors.

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