Migration Letters

Volume: 21, No: S6 (2024), pp. 1241-1252

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)

www.migrationletters.com

Unveiling The Obsession: Exercise Addiction Among Female Amateur Runners In Delhi-Ncr And The Power Of Unwavering Commitment

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Abstract

Aim and objective: This study was intended for a possible relationship between Exercise addiction and unbending commitment to physical activity among female amateur runners. Exercise addiction (EA) can be characterised as an obsession with physical activity; keep doing it even when they're injured and it's unhealthy. They also feel guilt and shame if they are unable to meet their own exercise goals. The growing number of long-distance runs and participation from Delhi and the national capital regions like Gurgaon, Noida, Faridabad and Ghaziabad each year, where females participate in large numbers, emphasises the need to understand the role of commitment that could lead to making exercise into behaviour addiction.

Methodology: "purposive sampling method," is utilised to collect data. The inventories taken for this purpose are "The Exercise Addiction Inventory" and "Commitment Running Scale". The questionnaire was filled out by 100 participants from the capital of India and its border area (Delhi & NCR) aged between 18 and 50yrs.

Results &Conclusion: It was found that 39% of female long-distance runners were exercise addicts, and 72% were highly committed to running, supporting a possible reason for EA

Keywords: *Commitment Running, Dysfunctional Exercise, Exercise Addiction, and Female Amateur Runner.*

Introduction

Regular exercise is good for health (WHO, 2018). Exercise like running has become a very popular recreational activity in recent years, practised by millions of people all over the world. It was considered an unusual activity until the 1960s,(Scheerder et al., 2015; Llopis-Goig & Vilanova, [1]2015). It provides an opportunity for both individual and community development (Haberman, 2017; Hulteen et al., 2017). It allows people to take charge of their physical and emotional health.

An array of perspectives has been explored in relation to EA among amateur runners, including demographics like age, years and time spent on the activities(Youngman et al., 2014; Macfarlane et al., 2016). Runners frequently develop a running addiction (ŽIVČIĆ

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TOMIĆ et al., 2022), they keep on running in pain to the extent of physical and emotional harm to health i.e., can have a number of negative consequences, including physical injuries, social isolation, and psychological problems
(Lukács et al., 2019). While the American Psychiatric Association has yet to recognise EA as a diagnosable mental illness, many people suffer from it, in society, and it does exist (Szabo & Demetrovics, 2022; Weinstein & Szabo, 2023; Back et al., 2019; Ertl et al., 2017).

More importantly, many runners felt empowered by the sport to challenge conformity and achieve greater freedom. (Zarauz-Sancho et al., 2017). From a behavioural perspective, commitment is the decision and desire to continue engaging in an activity, even while playing a sport. (Scanlan et al., 1993, 2003). The commitment grows when positive factors are present, including personal enjoyment of the activity, having opportunities for meaningful participation, making personal expenditures in terms of experience, time, and money, and facing societal pressures from parents, coaches, and peers. (Scanlan et al., 2003)

According to statistics, 621.16 million people around the world participate in running events. An approximately 57% increase has been noticed in the last decade. Around 28.76% of amateur runners were added during the pandemic in 2020-21(Runningwithgrit,2022). 50.24 % of runners in 2018 were women. During that period, the number of women outnumbered the number of men (Runningwithgrit, 2022). A total of 11,805 women out of 55,000 entries competed in all race categories in the Tata Mumbai Marathon (HT Correspondents, 2023). The "Association of International Marathons and Distance Races" has mentioned that women's participation has doubled from what it was in the last pre-pandemic physical race. ((Distance Running, 2022; Lichtenstein et al., 2021)
With all these positive benefits of exercise, it could be harmful when done without limits (Egorov & Szabo, 2013). When exercise is conducted with the express purpose of improving one's self-perception, it has the potential to become an obsessive, compulsory, and addictive kind of behaviour (Tylka & Wood-Barcalow, 2015a, 2015b), or an essential tool for emotional well-being (Nogueira et al., 2018; Freimuth et al., 2011; Terry et al., 2004; Hausenblas & Downs, 2002; Griffiths, 1996). Signs of (EA) include the following: "salience, conflict, mood modulation, withdrawal, tolerance, and relapse" (Griffiths, 2005; Griffiths (1996)).

Most studies show that commitment to running and EA have a positive correlation (Çetin et al., 2020). Though a commitment is needed to be a part of long-distance running, the highly committed might go overboard (Hamer & Karageorghis, 2007; Chapman, 1990, 2000). which then decreases the commitment (Scanlan et al., 2003). This produces fatigue, a negative effect on performance like depression, eating disorders, and substance addiction (López et al.,2021), and, in turn, mental stress (Lu.FJ.H. et al., 2012; Ruiz-Juan et al.,2011).

According to the findings of Monok et al. (2012), 30% of triathletes,9% of athletes and 7% of exercisers might be at risk. Recently, Nogueira López et al., (2021) have shown that some people in some groups may develop an addiction to working out. In "The International Journal of Mental Health and Addiction" a research paper by Lopez et al.,(2021), brings light on long-distance runners who are at a higher risk for developing an EA due to their high levels of drive while training(Lopez et al., 2021). Further support was found in research that highlighted 14% of endurance athletes and 18.3% of athletes were "at-risk" for EA, making running community vulnerable to 0.5 to 42 percent to have severe EA (Lichtenstein & Jensen, 2016; Di Lodovico et al., 2019). Fitness enthusiasts in India were affected by EA

to the tune of 8%. As much as 3% of the general population suffers from EA unmindful of gender specification and sports activity (Kumar Sharma et al., 2019), which confirms the earlier studies on EA (Mónok et al., 2012). The need to have a perfect body with the added benefit of social affiliation supports the negative effect of exercising (Corazza et al., 2019).

Women who ran long distances like marathons reported considerably greater levels of EA than men who ran the same distance. In this gender, EA is a strong desire for a thin frame, so to control weight. (Alcaraz-Ibáez et al., 2022 ;Chapman, 2020; Corazza et al., 2019) When studying EA, gender should be treated separately because women's physical activity behaviours differ significantly from men's (Dumitru et al., 2019).
There have been reports of gender differences in test results for indications of EA on "quality of life, mood, and sleep" in athletes since long hours on the field and exercise as an addiction were ignored due to lack of study as a possible reason (Pierce, et al., (1997). A strong mental health for strong performance is needed on the ground (Ekelund et al., 2022). Female athletes' experiences with EA require a more methodologically diverse approach for different reasons like thin body frame, and eating- disorders if we are to move beyond purely quantitative knowledge. Female athlete populations are understudied in the literature, even though being elite, and recreational (Perry et al., 2021; Weinstein & Szabo, 2023).

Materials and Methods

Objective

- To find out the pervasiveness of EA in female amateur runners.
- To ascertain the relationship between EA and commitment to running.
- To investigate EA in relation to marital and occupational status.

Methods

Participants

The population of the study: Female amateur runners undertaking long-distance running or marathoners.
From different parts of Delhi and NCR, a list was made in the initial stage. The Head of these groups was approached and was oriented about the purpose and objective of the study. This helped in getting to know the female group members. Through purposive sampling techniques 120 participants with an age group of 18 to 55 years (M=36.56, SD = 3.93), from eight groups (two from each region) participants were approached to participate. Following the criteria (inclusion and exclusion) the questionnaires in Google form were shared with participants. This included that atleast two "timed races" (a chip from an authorised agency is attached to the runner that records the distance and time taken to complete the race. In the end the runner gets a certificate of completion). The long-distance range is from 10 km, 21km, 42 km or ultra). The knowledge of English (read speak and write) was an essential criterion to respond to the questionnaire. It was taken into consideration that the online form should be filled in the presence of the researcher to assure the reliability of the responses, maintaining the secrecy and use of the form only for research purposes. All participants were oriented about the objective and purpose of the study. Consent was sought from them verbally. With few apprehensive about filling out online forms for security reasons like data stealing online, a hard copy of the form was shared. Out of 120 samples, 100 participants filled the responses completely.

Demographics

(Table 1 shows sociodemographic details. Table 2 indicates age related frequencies)
An average age of 100 subjects was recorded as 36.56 (SD=8.9777), and the division as per marital status was (64%) married, (27%) unmarried, (32%) divorced and (5%) separated. The educational status frequencies were (30%) graduates from different fields (39%) post-graduate, and (24%) from other professional courses like law/ medical etc. The maximum share consisted of employed (68 %,=(8%) govt jobs, and (57 %) were lawyers, doctors, IT and others), 11% were students and home-maker, respectively.

Result Table:1 Demographic details.

Participants	**Variables**	**Details**	**Sample -Mean**	**Percentage (%)**
100	Age (n)	18-25	10	10
	18-50	26-30	12	
		31-35	14	
		36-40	21	
		41-45	25	
		46-50	18	
	Marital	"Married"	64	64%
	status	"Unmarried"	27	27%
		"Separated"	03	3%
		"Divorce"	05	5%
	Education	Graduate		30%
		Post-graduate		39%
		Ph.D.		7%
		Others (Medical/LLB etc)		24%
	Professional	Student		
	status	Working		11%
		Non-working		68%
		or home-maker		21%

Tests and Scales:

1. **Demographic questions**: (Table 1): This was created by the researcher to collect personal as well as exercising, or running attitude. That includes information regarding their age, education, marital and professional status.
2. **Exercise Addiction Inventory (EAI)**: A 6-item Inventory, EAI is developed by Terry et al., in 2004. The foundation for the EAI's items is based on behavioural addiction model such as; "salience, conflict, mood modulation, tolerance, withdrawal, and relapse". These items correspond to the Five-point Likert scale that accompanies each statement. With a score of 1, you strongly disagree; 2, you disagree somewhat; 3, you do not really care either way; 4, you agree somewhat, and 5, you agree a lot. A high comment score suggested abnormal compulsiveness about exercising. An EA risk exists if the individual scores 23 or above on the EAI. The EAI has excellent reliability (Cronbach alpha =.84). The reliability between the two separate tests was 0.85. General practitioners may use the EAI to rapidly and readily identify patients experiencing or at ill effects from EA. The Indian exercise-population have also been measured through this scale**,** thus making it an appropriate tool for this study.

3. **Commitment to running scale (CR-11)**: A 11-item CR-11 scale was initially developed by Carmack & Martens, (1979) with 12 items and later modified by Zarauz Sancho, A. and Ruiz-Juan, F. (2011) 11 items. These items are assessed between Strongly-Disagree (1), Disagree (2), Neutral (3) Agree (4), and Strongly Agree (5). From 11 and 55 (with 55 being the best possible score). The reliability of the scale is α = .770. In the present research, on the Indian population, it is computed as .87 (N=100)

Results:

1 EA (Table:2&3) in the sample was recorded to be 39%. 2% exercise without any adverse effects. 59% are in the symptomatic range. Further on the items for 12.5% "exercise is very essential in their life ", where, 9.1% admitted that they face conflicts due to running habits, to enhance mood and avoid mood issues 14.5 % use exercise. For 14% an increased amount of exercise gave them " runners high". Missing exercise sessions spoils a day with irritable mood throughout for 14.16%, and 14% end up overdoing if somehow could not exercise when injured.

Result Table:2 Exercise addiction in the sample

EA Range	Participants running regularly in long-distance running	Frequency	percentage
0-12 Normal	100	2	2%
13-23 Symptomatic		59	59%
24-30 severity range		39	39%

Result Table: 3 (EAI Terry et al., 2004)

Statement	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
"Exercise is the most important thing in my life Salience	4	9	12	41	34
Conflicts have arisen between me and my family and /or my partner about the amount of exercise I do	2	43	10	38	7

"I use exercise as a way of changing my mood (e.g., to get a buzz, to escape, etc)"	4	9	6	65	16
"Over time I have increased the amount of exercise I do in a day"	0	16	5	65	14
"If I have to miss on exercise session, I feel moody and irritable."	0	13	5	65	15
"If I cut down the amount of exercise I do and then start again. I always end up exercising as often as I did before"	0	16	15	50	19

2 On the commitment to running scale (Table: 4), it came out that 72% were highly committed, and 26% were moderately committed could mean that running is a dedication for them. Two factors of commitment deal with runners' passion for the sport (6-items CR scale) and secondly with their susceptibility to injury (5 items on the scale) that emerged from the study on runners' attitudes about the activity. Runners who care about their sport and those who overdo. EA and commitment to running are found to have significant relations.(Table:5)

Result Table: 4 Commitment Running Scale CR-11

Commitment running Range	Participants	frequency	Percentage %

0-11(asymptomatic)	100	0	0
11-21 (some-Commitment)		2	2
21-41(Moderately committed)		26	26
42and above (highly committed)		72	72

Table 5: Relationship between EA and demographic variables as well as EA and commitment to running.

Variable	Sig p<.05	hypothesis
Age	.326>.05 Chi-square 2187[a]	H0= no association with EA H1= an association with EA **Result= No association between EA and Age**
Professional status	0.029<.05) Chi-square 7.059[a]	H0= EA has no association with professional status. H1=. Professional status does affect dysfunctional EA **Result: an association between EA and PS**
Marital status	0.29>.05 Chi-square 5.545[a]	H0= EA and marital status have no association H1= EA and marital status have an association **Result: No association between EA and MS**
EA/commitment to run	.00<.05 Chi-square 63.649[a]	H0= there is a significant relationship between Highly committed to running and EA H1= There is an association between being highly Committed to running and EA **Result= There is a strong relation between both, as more commitment has a strong association with dysfunctional exercise patterns.**

Result, & Discussion

The purpose of the research was to acknowledge the incidence of EA among female amateur runners. The aim was extended to investigate EA in relation to age group, marital and occupational status. Moreover, this study further ascertains the association between EA and commitment to running. Concerning the goal mentioned above, a significant proportion of this cohort demonstrated risk of EA which is 39% The trend of running for fitness is also increasing after Covid 2019 (Hindustan Times, 2023 Jan,15,). Thus, provide credence to the prior finding in the studies by Youngman & Simpson(2014), stating the incidence of EA in athletes varies between 7% and 21.7% and more vulnerable amateur triathletes with 43.3% (Youngman & Simpson, 2014; Blaydon & Lindner, 2002).

The range of risk of EA in women remained unchanged from 5% to 21.7%, while in men it spans 4% to 51%. (Youngman & Simpson, 2014; Costa et al., 2015).

Furthermore, the association of EA with age (x^2=4.589[a], p0.32>.05) and, marital status ($x^2$6.699[a], p 0.29>.05), professional status (x^2=7.059, p=.029<.05) and commitment (x^2 =63.649[a], p00<.05). More maliciously, the prevalence rate of EA was observed non significantly differed among married(30%), unmarried(6%), and single(1) and divorced(2). For age (18-25,26-30,31-35,36-40,41-45,46-50) but significant with professional status i.e., employed and unemployed (Student(1%), Working(26%), non-working or home-maker(12%). The finding also revealed a significant strong association between EA and commitment (x^2=63.649[a],p=00<.05).

In research responses, it has been observed that for most of the females who participated in the research, exercise was a defence for stressors which was otherwise hard to deal. Initially, it helped, but as time passes the negative outcomes from exercise such as injuries became a stress to deal with (Egorov & Szabo, 2013). Since, when pursued passionately, exercising can serve as a vehicle for articulating one's sense of individuality (Chamarro et al., 2015). The participants in the sample were not restricted to running but, were also involved in other forms of exercise too.

The link between EA and commitment to running

Highly committed runners are more likely to have a good outlook on running (72%) than casual runners (26%), as seen in Table 4. The finding is consistent with the earlier finding that high commitment has a significant relation with EA as revealed that Unyielding commitment to exercise involves runners overdoing, which could harm the very goal of the positive effect of exercise (Parra-Camacho et al., 2020). Dysfunctional exercise as behaviour is not given much attention in the research on Indian context. To add, this community remained silent sufferers, which sometimes get fatal (Najari et al., 2016).

Like the world, in India, exercise has been regarded good for health for that reason Health and fitness market is expected to be 34.60 million US dollars (Health & Fitness - India | Statista Market Forecast, 2022)and so however excessive exercising has a negative consequence (Bala, I.,2023; Kumar,2019). Hence, given very less attention in research, additionally, gender difference, and sport-specific in EA is neglected (Lichtenstein et al., 2016). As female amateur runner participation is on the rise in the country, these results are eye-opening. Certainly, in India, females experience higher rate of mental illness as compared to males. (A. Minhas & 12, 2023 India: Mental Health Disorders by Gender Statista, 2021). In this context, physical activity is recommended as a part of treatment indicating a sign of caution. Besides stress management, EA among women is linked to eating problems and body shaming, due to social acceptance of exercising with no limit tag (Ahorsu et al., 2023). Despite those females, who have overcome the social stigmas associated with it and won their fight with social stigma attached to lower social approval to running in open for health are more likely to engage in it with higher commitment (ANI: Mar 8, 2021). Commitment to one's health-related good habits are good but going overboard in this process will do more harm than good. It became evident need of an hour to educate the racing community about this problem, risks attached and in need, where to seek help (IVI TOMI et al., 2022; Dumitriu et al.,2019). Research is needed to study EA as after covid, and there is a fitness trend (Kanwal, 2022). The prevalence of EA might differ in literature due to methodological limitations such as study tools, sample inadequacy,

and so on. Despite these limitations, the gravity of the decline towards dysfunctional exercise cannot be ignored.

Conclusion

No association between EA and Age, marital, and professional status.

There is a strong relation between both, as more commitment has a strong association with dysfunctional exercise patterns.

Strength and Limitations

The study focuses on a highly discussed area of behavioural addiction i.e., EA. This study included runners from various running groups belonging to various localities. Indeed, the result would certainly be conducive to give its contribution in literature. Despite these strengths, this has its own limitation as studied on female volunteers, the male population has remained unstudied. Further, this study included only English-speaking/writing runners. However, the purposive sampling technique for sample selection used here further limits the fair selection of the sample. Participants' psychological states was not assessed beforehand to rule out any pathology. The responses were collected during their training time on the ground this might influence their answers, as they might be highly motivated and committed at the time to their activity. These limitations are assumed to render the external validity of this finding. Despite all odds, the present finding sheds some understanding on the connections between EA, and commitment for a favourable result, future research should use a sport-specific approach on gender and on other controversial areas of this behavioural type of behavioural addiction.

Conflicting interest if any

No financial or any other competing interests

Funding: Funding sources: No funding was provided for this research.

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