



RELATIONSHIP BETWEEN LEISURE-TIME PHYSICAL ACTIVITY AND EMOTIONAL INTELLIGENCE IN FEMALE UNIVERSITY STUDENTS: A CORRELATIONAL STUDY

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Abstract:

Background: Association between physical activity and mental health has been well documented. Both leisure-time physical activity and emotional intelligence are related to health-related quality of life. Hence, it is important to explore the linkage between these two parameters.

Methods: A total of 126 female university students of age 20-30 years participated in the study. The scores regarding leisure-time physical activity were assessed using International Physical activity questionnaire (long form). Emotional intelligence was assessed by administering a 5-point scale developed by Hyde et al (2002). Normality of data was tested using Kolmogorov-Smirnov test. Spearman's rank order test was run to see the relationship between non-parametric continuous data.

Results: Leisure-time physical activity level was significantly positively correlated with the overall emotional intelligence and sub-scales: self-awareness, Self-motivation, emotional stability, managing relations, integrity, self-development, value orientation and commitment ($p < 0.05$). Meanwhile, no significant correlations were assessed between leisure-time physical activity level and subscales: empathy and altruistic behavior.

Conclusions: Findings of the present study revealed that there is a strong positive correlation between leisure-time physical activity and emotional intelligence.

Keywords: leisure-time, physical activity, emotional intelligence, relationship

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1. Introduction

Physical activity is indispensable in improving the emotional well-being of beings (Li et al, 2009). Emotions are the vital and important feature of human nature and the inspiration for behavior. According to Goleman (1995), being able to monitor and regulate one's own feelings, understand the feelings of others, and use that "emotion" or "feeling" knowledge to guide thoughts and actions is known as emotional intelligence (EI). Emotional intelligence is the ability to perceive, integrate, understand, and manage emotions (Baron 2002), which is concerned with understanding oneself and others, relating to people, and adapting to and coping more successfully with environmental demands. Emotional intelligence is, therefore, considered as a significant predictor of future success in many facets of life (Baron 2002; Saarni 1999; Goleman 1995). Many researchers argued the aforesaid emotional benefits to consistent physical activity (Hellison 2003; Leith 2002; Kerr & Kuk 2001; Baker & Brownell 2000; Biddle 2000; ASCM 1998; Fox 1990; Sonstroem & Morgan 1989) that boost optimistic and pleasing emotions (Turnbull & Wolfson 2002; Kerr & Kuk 2001; Sonstroem & Morgan 1989; Berger & Owen 1988), jolly mood and more reasonable anxiety-lessening effects (Biddle 2000), enriching sense of bliss (Szabo 2003), and higher levels of positivity (Kavussanu & McAuley 1995).

It has been documented that university students tend to practice unnatural weight control practices by negotiating food consumption by skipping meals, or tend to eat innutritious/low-calorie diets (Megel, Wade, Hawkins, & Norton, 1994). If not intervened early, these two tendencies among university students i.e. inadequate physical activity and unhealthy dieting behaviors could lead to several long-term health issues. In India, empirical data pertaining to physical activity prevalence and its benefits are limited. However, few studies have shed light on university student's physical activity status and associated it with few socio-demographic and physical fitness and psychological variables (Singh and Singh, 2017; Singh et al. 2017, Singh et al, 2017). The present study is an attempt to highlight the associations between leisure-time physical activity and emotional intelligence among university students.

2. Materials and methods

The study involved a sample of the 126 female students of age 20-30 years from Guru Nanak Dev University, Amritsar, India. The convenience sampling method was utilized to recruit the participants. The scores of leisure-time physical activity levels were derived using International Physical Activity Questionnaire (long form) and its

guidelines were followed for data processing (www.ipaq.ki.se, 2005). Continuous scores of physical activity were expressed in MET-min/week. (Metabolic equivalents of task). Emotional intelligence was assessed by using a 5-point scale developed by Hyde et al (2002). The overall scores of emotional intelligence were calculated by summing up the scores of its ten components viz. self-awareness, empathy, self-motivation, emotional stability, managing relations, integrity, self-development, value orientation, commitment and altruistic behavior. The Kolmogorov-Smirnov test was run to test the normality of the data and it was depicted that data was skewed. Accordingly, Spearman's rank-order test was employed to examine the correlations between the non-parametric continuous variables.

Table 1: Correlations between Leisure-time physical activity levels and the components of Emotional intelligence

Variable	Leisure-time physical activity level	
	Spearman's rho	p-value
Self-awareness	0.563	0.001*
Empathy	0.116	0.197
Self-motivation	0.427	0.001*
Emotional stability	0.314	0.001*
Managing relations	0.360	0.001*
Integrity	0.328	0.001*
Self-development	0.243	0.006*
Value orientation	0.241	0.007*
Commitment	0.626	0.001*
Altruistic behavior	-0.167	0.062
Overall Emotional intelligence	0.556	0.001*

*Significant at 0.05 level

Table 1 shows the relationship of Physical activity levels with overall emotional intelligence and its variables. Significant positive correlations were noticed between Leisure-time physical activity levels and self-awareness ($r_s(126) = 0.563, p < 0.05$), Self-motivation ($r_s(126) = 0.427, p < 0.05$), emotional stability ($r_s(126) = 0.314, p < 0.05$), managing relations ($r_s(126) = 0.360, p < 0.05$), integrity ($r_s(126) = 0.328, p < 0.05$), self-development ($r_s(126) = 0.243, p < 0.05$), value orientation ($r_s(126) = 0.241, p < 0.05$), commitment ($r_s(126) = 0.626, p < 0.05$) and overall emotional intelligence ($r_s(126) = 0.556, p < 0.05$). On the other hand, no significant correlations were observed between Leisure-time physical activity levels and the components empathy and altruistic behavior.

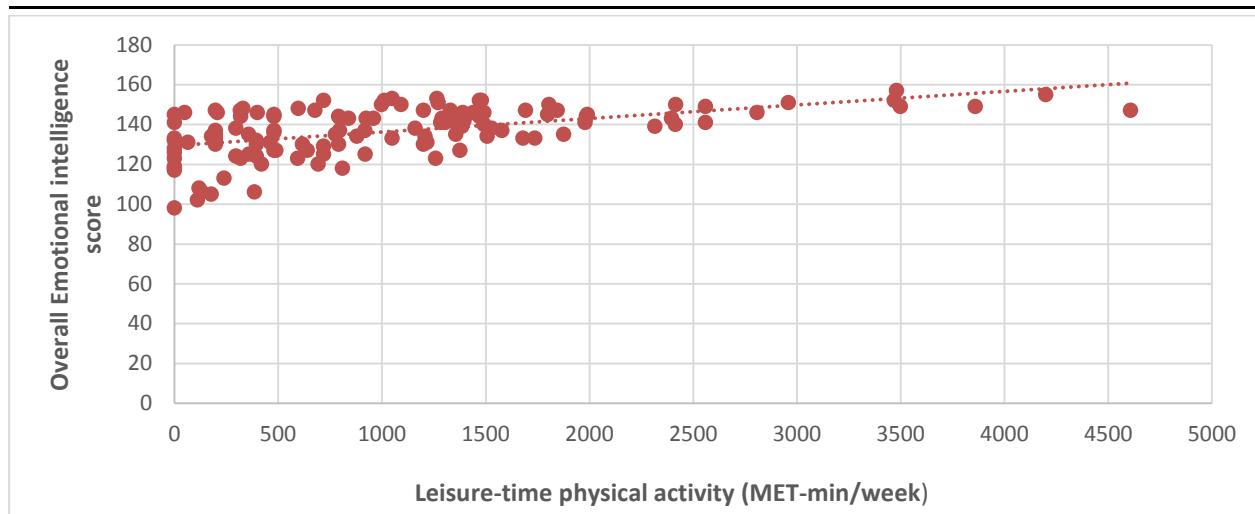


Figure 1: Graphical depiction of relationship between Leisure-time physical activity and overall Emotional intelligence

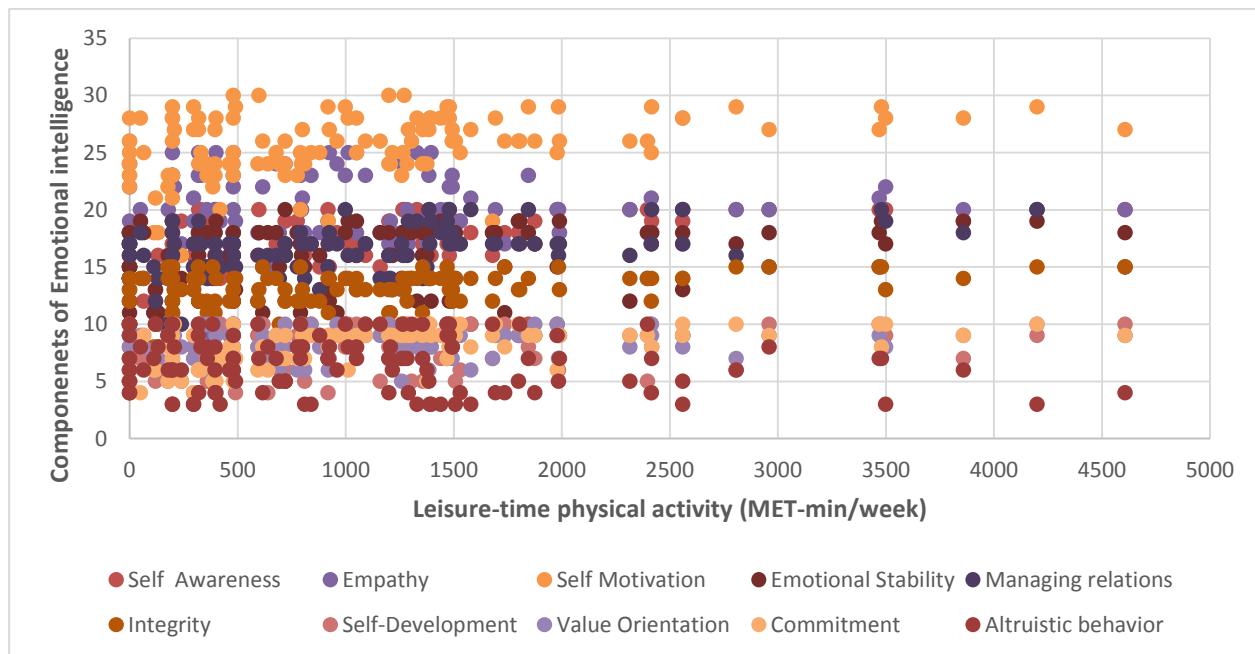


Figure 2: Graphical depiction of relationships between leisure-time physical activity and components of Emotional intelligence

3. Discussion

The objective of this study was to determine the relationship between leisure-time physical activity levels and emotional intelligence among the female university students. It was found that leisure time physical activity was positively associated with overall emotional intelligence including the component: self-awareness, Self-motivation, emotional stability, managing relations, integrity, self-development, value orientation and commitment. These findings are in agreement with the conclusions of

Bhochhibhoya et al. (2014); Zysberg and Hemmel (2017); Li et al. (2009). Li et al. (2009) proposed that physical activity best predicted the emotional intelligence once equated to gender, mental health, general mood, and general health. Similarly, the subscales of regulating and utilizing emotion were found significantly different when compared in three physical activity groups (Omar et al. (2012). Both of above studies advocated the relationship between level of physical activity and emotional intelligence; furthermore, physical activity was known to be a significant predictor for emotional intelligence establishing agreement with the number of studies (Hellison, 2003; Leith, 2002; Kerr & Kuk, 2001; Baker & Brownell, 2000; Biddle, 2000; ASCM, 1998; Fox, 1990; Sonstroem & Morgan, 1989). Another study by Al Sudani & Budzynska (2015) revealed the fact that physical activity was associated with avoidance, task oriented coping, social diversion along with emotional intelligence. The subscales self-awareness and commitment showed strong positive correlations with the leisure-time physical activity. However, no significant correlation was observed for two subscales: empathy and altruistic behavior. Findings regarding empathy are in contrast to the study of Smith (2000), who found more empathetic behavior in those with higher physical activity levels. However, this study is in line with the findings of Smith (2000) regarding managing relations.

4. Conclusions

It can be concluded from the above analyses that leisure time physical activity has strong linkage with overall emotional intelligence including its various components.

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