

PHYSICAL ACTIVITY AND SPORT AND THEIR IMPACT ON MENTAL HEALTH OF ALGERIAN ADOLESCENTS

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Abstract

Objective

The present study examines the effects of physical activity on adolescent's mental health, in a representative sample of males and females.

Method

A total number of 256 adolescents with mean age 16.4 years participated in the study. Mental health was measured with the Mental health inventory (MHI-38) . A questionnaire was used to estimate the level of physical activity. The study aimed to demonstrate the relationship between PA and mental health, also the type and various levels of physical education and sport in males and females and the various dimensions of mental health.

Results

Physical activity was positively associated with mental health for males and female despite the fact that girls scored lower in physical activity. Results indicated that the relationship was positive with the wellbeing and negative with distress.

Conclusion

The findings suggest that physical activity is associated with adolescents' mental health, and that beyond primary prevention for distress.

Keywords: physical activity, mental health, adolescence, Algeria.

1 INTRODUCTION

Mental health is defined by the World Health Organization (WHO) as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community. (who, 2001)

Adolescence is a crucial period of biological change and developmental potential. Current data estimate that one in five children is expected to develop some form of mental health problem by the time they reach adulthood, and that 50% of all adult mental health problems develop during adolescence(Belfer, 2008; Oddy et al., 2009)

Many mental health problems emerge in late childhood and early adolescence. Recent studies have identified mental health problems - in particular depression, as the largest cause of the burden of disease among young people.(who, 2014a)

Numerous researchers report an association between physical activity and mental health(Dunn, Trivedi, & O'Neal, 2001; Jewett et al., 2014) . Physical activity is defined as all bodily movement produced by the muscular system that increases energy expenditure above normal physiological demands (Ortega, Ruiz, Castillo, & Sjöström, 2008; van der Niet, Hartman, Moolenaar, Smith, & Visscher, 2014; who, 2014b)

Physical activity may play an important role in the management of mild-to-moderate mental health diseases, especially depression and anxiety. Although people with depression tend to be less physically active than non-depressed individuals(Paluska & Schwenk, 2000).Specially Physical activity in adolescence may contribute to the development of healthy adult lifestyles, helping reduce chronic disease incidence(Hallal, Victora, Azevedo, & Wells, 2006)

WHO confirmed that regular moderate intensity physical activity – such as walking, cycling, or participating in sports – has significant benefits for health. For instance, it can reduce the risk of cardiovascular diseases, diabetes, colon and breast cancer, and depression. Moreover adequate levels of physical activity will decrease the risk of a hip or vertebral fracture and help control weight.(who, 2014b)

Physical activity is an effective prevention measure because it improves health(Kim et al., 2012) and it's considered as a lifestyle factor with an important role on health across the lifespan.(Izquierdo-Gomez, Martínez-Gómez, Villagra, Fernhall, & Veiga, 2015)

Apart from the considerable physical health-related benefits, results of researches indicate that a number of psychological benefits have been identified, with the most evidence about depression, anxiety, self esteem and general mental health.(Bamber, Carroll, Cockerill, & Rodgers, 2000; K. Abu-Omar, 2004; Kim et al., 2012; who, 2001). Generally, the human literature indicates that people who exercise regularly have lower risk for developing stress-related mental health disorders than do sedentary peers(M. Gerber, 2009).

Similarly, physical activity in the context of sport participation provides opportunities for social interaction and connectedness that may foster positive mental health(Brunet et al., 2013)

In Algeria few studies only have examined mental health especially in adolescence .The aim of this paper is to explore the relationship between physical activity and mental wellbeing of Algerian adolescents.

Method

A total number of 256 adolescents from secondary education with mean age 16.4 years participated in the study. Mental health was measured with the mental health inventory (MHI-38). We used the Arabic version, which was translated and modified in previous research. A questionnaire was used to estimate the level and type of physical activity.

Measures

Mental Health Inventory (MHI)

The Mental Health Inventory (MHI) is a 38-item measure designed to assess the multi-dimensional nature of psychological well-being, including: anxiety, depression, loss of behavioural/emotional control, general positive affect and emotional ties. The 38 items are part of the 116 core measure of function and well-being from the Medical Outcomes Study.(IN-CAM, 2014) The MHI was distributed with the questionnaire to all the respondents selected for the data by hand in the same time.

Physical activity

To measure the physical activity we used a questionnaire that consists of questions about physical activity, and this in terms of the type of physical activity practiced , the time of each training session and the number of practice a week. The questionnaire also included a part about personal information and was distributed to all the respondents selected for the data by hand in the same time.

Data analysis

Preliminary analyses involved descriptive statistics (i.e., means, standard deviations), A T test was conducted to examine mean differences in the mental health indicators according to PA.

All statistical analyses were carried out using SPSS, version 20.0. Descriptive statistics of frequencies, means, and standard deviation were calculated for all instruments, and independent samples *t*-tests were used to compare gender mean scores on the scales.

Results

Table 01 represents the characteristics of the sample

The results in Table I were referring to the descriptive statistics for the sample which consisted of 256, including 125 male and 131 female. The results indicated that girls' rate in wellbeing of 55.43 with standard deviation of 11.68 and the rate of boys is 50.43 with standard deviation of 12.04.and distress of girls rate was 71.57 with a standard deviation of 21.18 and the boys rate was 83.14 with a standard deviation of 21.47.

variable	N	wellbeing		Distress	
		m	sd	m	sd
girls	125	55.43	11,68	71,57	21,18
boys	131	50.43	12,04	83,14	21,47
practice					
1-3 week	120	52,93	11,69	77,36	21,35
3-6 week	136	71,14	5,20	47,14	8,53

Table 02 represents the different in mental health according to sex.

Results of the study of the differences between male and female showed that there was no difference between the two, where the results of T- test is 1.06 in wellbeing and it's non-statistically significant, and also in distress where the results it's no non-statistically significant.

variable		wellbeing		T-test	Distress		T-test
		m	sd		m	sd	
girls	125	55.43	11.68	1.06	71.57	21.18	0.8
boys	131	50.43	12.04		83.14	21.47	

Table 03 represents the differences in the mental health indicators according to PA.

Results of the table 03 indicate that there are differences in mental health, where the greater duration of the practice increased in the week, and improved mental health of adolescents.

variable	N	wellbeing		T-test	Distress		T-test
		M	SD		M	SD	
1-3 week	120	52,93	11,69	5,32**	77,36	21,35	4,91**
3-6 week	136	71,14	5,20		47,14	8,53	

** sig 0.01.

CONCLUSIONS

We investigated in the present study the association between physical activities and mental health ,the hypothesis of the impact of physical activities on mental health was supported in that it was statistically significantly associated with wellbeing and distress, this confirms that the intensity of physical activity has an impact on the mental health of adolescents. These results are confirmed by many studies that show an inversed relationship between physical activity and depression or depressive symptoms; individuals with high activity levels report less depression or depressive symptoms than individuals with low activity levels(Abu-Omar, Rütten, & Lehtinen, 2004; Goodwin, 2003; Janney et al., 2008) . The human literature indicates that people who exercise regularly have lower risk for developing stress-related mental health disorders than do sedentary peers(M. Gerber, 2009; Wilner & Tone)

Concerning the difference between boys and girls we concluded that there is no difference, although studies of gender and mental health consistently show that women exhibit higher rates of affective disorders like anxiety and depression, while men exhibit higher rates of behavioural disorders like substance abuse and antisocial personality(Hill & Needham, 2013; S. Seedat, 2009) But this result confirmed the findings of the studies that have indicated that women and men have similar or equal rates of overall psychopathology.(C. Bird, 2008; S. Seedat, 2009)

Ultimately, the results of our research is limited because we have not done to make sure of physical

activity, which stimulates and motivates us as Algerian researchers in this field to go deeper in these studies, which remain very low in Algeria.

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