



## **Physical Activity and Sport and Their Impact on Mental Health of Algerian Adolescents**

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### **Info Artikel**

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### **Abstrak**

Penelitian ini meneliti efek dari aktivitas fisik pada kesehatan mental remaja, dalam sampel yang representatif dari laki-laki dan perempuan. Sejumlah total 256 remaja dengan usia rata-rata 16,4 tahun berpartisipasi dalam studi. Kesehatan mental diukur dengan persediaan kesehatan mental (MHI-38). Kuesioner digunakan untuk memperkirakan tingkat aktivitas fisik. Penelitian ini bertujuan untuk menunjukkan hubungan antara PA dan kesehatan mental, juga jenis dan berbagai tingkat pendidikan jasmani dan olahraga pada laki-laki dan perempuan dan berbagai dimensi kesehatan mental. Aktivitas fisik secara positif terkait dengan kesehatan mental untuk laki-laki dan perempuan meskipun fakta bahwa anak perempuan skor lebih rendah dalam aktivitas fisik. Hasil penelitian menunjukkan bahwa hubungan positif dengan kesejahteraan dan negatif dengan distress. Temuan menunjukkan bahwa aktivitas fisik berhubungan dengan kesehatan mental remaja, dan bahwa di luar pencegahan primer untuk distress.

### **Abstract**

*This current study examines the effects of physical activity on adolescent's mental health, in a representative sample both males and females. A total number of 256 adolescents with mean age 16.4 years participated in this study. Mental health was measured by the Mental Health Inventory (MHI-38). A questionnaire was used to estimate physical activity level. This study aims 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. Physical activity is positively associated with mental health for males and female despite the fact that girls score lower in physical activity. Results indicate that the relationship is positive with the wellbeing and negative with distress. The findings suggest that physical activity is associated with adolescents' mental health, and that beyond primary prevention for distress.*

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## PENDAHULUAN

Mental health is defined, by the World Health Organization (WHO), as a state of well-being in which every individual who realizes his or her potential, can cope with the normal stresses of life, can work productively and fruitfully, and can 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, & Sjörström, 2008; van der Niet, Hartman, Mooleenaar, 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 is 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 some psychological benefits have been identified, with the most evidence of depression, anxiety, self-esteem and general mental health. (Bamber, Carroll, Cockerill, & Rodgers, 2000; K. Abu-Omar, 2004; Kim et al., 2012; who, 2001). The human literature indicates that people who exercise regularly have a lower risk for developing stress-related mental health disorders than do sedentary peers (M. Gerber, 2009).

Similarly, physical activity in sports participation context 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 well-being of Algerian adolescents.

## METHOD

A total number of 256 adolescents from secondary education with mean age 16.4 years participated in this study. Mental health was measured by 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 multidimensional nature of psychological well-being, including anxiety, depression, loss of behavioral/emotional control, general positive affect, and emotional ties. The 38 items are part of 116 core measure of function and well-being from the Medical Outcomes Study. (IN-CAM, 2014) In this study, the MHI was distributed with the questionnaire to all selected respondents for the data by hand at the same time.

#### Physical activity:

To measure the physical activity, we used questionnaire consists of questions about physical activity regarding 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 of the personal information and was distributed to all selected respondents for the data by hand at 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 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 is referring to the descriptive statistics for the sample which consists of 256, including 125 male and 131 female. The results indicate that girls' rate in the well-being of 55.43 with a standard deviation of 11.68 and the rate of boys is 50.43 with a standard deviation of 12.04. Moreover, distress of girls rate is 71.57 with a standard deviation of 21.18 while the boys rate is 83.14 with a standard deviation of 21.47.

Variable	N	wellbeing		Distress	
		m	sd	m	sd
Sexe					
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 show that there is no dif-

ference between the two, where the results of T-test is 1.06 in well-being, and it is non-statistically significant, and also in distress where the results it is no non-statistically significant.

variable	N	wellbeing		T-test	Distress		T-test
		m	sd		m	sd	
sex							
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 in Table 03 indicate that there are

differences in mental health, where the greater duration of the practice increase in a week, and improve the mental health of adolescents.

variable	N	wellbeing		T-test	Distress		T-test
		M	SD		M	SD	
practice							
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	

**CONCLUSIONS**

We investigated in the present study about the association between physical activities and mental health. The hypothesis of physical activities impact on mental health was supported in that it was statistically significantly associated with well-being 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 inverted 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 conclude 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 confirms the findings of the studies which 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 are limited since we have not made sure of physical activity, which stimulates and motivates us as Algerian researchers in this field to go deeper in these studies, which remain lowest in Algeria.

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