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Screening of Eating Disorders using the Scoff-F Test at Algerian Judokas

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ABSTRACT

The goal of this research is the detection of eating disorders (ED) in athletes and in particular in high-level Algerian judokas (national level) compared to female sedentary subjects of the same age. The study made on 45 subjects (20 sporting and 25 sedentary), the screening of the ED on this population is done using the SCOOFF-F test French version, a questionnaire administered to the whole of the target population and after collection information about dietary habits personal history, the results revealed that 70% of judokas have a SCOOFF-F + test with a very high risk of developing a ED, and 20% of judokas present a menstrual disorder and who may later develop a Female Athlete Triad, compared to the rest of the study population, the sedentary, however, did not present a risk of developing a ED.

Keywords: Screening, Eating disorders, Judo.

INTRODUCTION

The sport in general has a pressure due to sports training, and specific training of the physical constraints of food restriction for a harmony of body and for better performance (optimal), the desire to concretize its efforts to achieving results. All these constraints can sometimes lead to the eating disorders [1].

The judokas specifically ED can develop because they have recourse to a voluntary reduction in body weight in cyclical ways to increase their performance and change weight category and increase their chance of success in competition [1-14].

According Sundgot-Bergen, athletes who use at least one method of weight control such as fasting, self-induced vomiting, taking laxatives or diuretics, sauna can develop ED [7].

Many judokas looking to lose weight to change categories, and increase their chances of success in competition. To do this, they undertake slimming diets may create physiological disorders prejudicial to their health and performance [2].

Food restriction strategies using excessive methods of weight loss that can lead eventually ED among judokas predisposed [14].

On comparing the ED in Algerian judokas high level compared to subjects of the same sex and similar age but sedentary, would the prevalence of the same ED?

The purpose of our protocol was to evaluate the prevalence of ED in an Algerian sporting population practicing judo at the national level, compared to sedentary.

Definition of eating disorders

Often called eating disorders (ED) or disorders eating (DE) [12].

This is the set of disorders characterized by psychological disturbances and physiological disorders of appetite and/or food consumption associated with body image disorders mostly emerging in adolescence [6].

The eating disorder is a psychopathology resulting entity has a serious and persistent disruption of eating behaviours associated with a weight control behaviour that significantly degrades the physical and psychosocial functioning of a person [3].

Female Athlete Triad

It is generally hypothesized that the development of the triad follows a typical progressive pattern [11]. The female athlete, believing that a lower body weight would enhance athletic success, begins to diet [4]. For numerous reasons, the athlete's diet becomes increasingly restrictive, her eating behaviours increasingly un-healthy [8].

The resulting energy restriction and pathogenic weight control behaviours predispose her to menstrual dysfunction and subsequent decreased bone mineral density BMD [5]. According to this hypothesized scenario, the triad disorders are interrelated, such that the existence of one disorder is linked, directly or indirectly, to the others [4].

METHODS

The population consisted of 45 subjects (20 judokas from national level and 25 sedentary) whose anthropometric characteristics are presented in Table 1. The judokas were national and practiced their activity over 10 hours per week.

Table 1: Characteristics of the study population.

	Age (years)	Weight (kg)	Height (cm)	BMI (kg/m ²)
sedentary (n=25)	17,5 ± 1,0	57.8 ± 6,5	166,1 ± 4,9	18,7 ± 1,2
judokas (n=20)	17,4 ± 1,1	53,5 ± 5,2	164.1 ± 6,8	21.2 ± 2,2

Measures

A self-administered questionnaire was distributed to all participants and helped to collect information about their training (volume, years of practice), their feeding behaviour (frequency plans, purge use, vomiting), menstrual history.

The prevalence of ED was the Questionnaire Sick, Control, One, Fat, Food (SCOFF-F) [6].

The SCOFF-F questionnaire assesses 5 dimensions of its acronym. It is easy to use and allows the suspicion of anorexia or bulimia [9,10,13].

The SCOFF therefore includes five questions:

- S for sick (vomit): You induce vomiting because you feel bad to have eaten too much?
- C control (control): You worry that you have lost control of what you eat?
- O to one stone (stone): British unit of weight=6.348 kg): Have you recently lost more than 6 kg in 3 months?
- F for fat (fat): Do you think you're fat, while others you are too thin?
- F for Food (food): How about the food dominates your life?

The measure is dichotomous (0:No, 1:Yes). A positive response to at least 2 of the 5 questions establishes 100% sensitivity for anorexia and bulimia with a specificity of 87.5%.

Anthropometric parameters

The weight of the subjects was assessed with a tolerance of 0.1 kg using a digital portable scale. The size was measured with a tolerance of 0.1 cm using a height gauge. From these measurements was calculated the body mass index (BMI).

Statistical analysis

In our study, we used the descriptive statistical analysis; the results are expressed as mean \pm standard deviation. The significance level was set at $p < 0.05$. Statistics were performed using the SPSS 12.1 software release.

RESULTS

Table 1 shows the characteristics of the subjects (target population), shows that there is no significant difference in BMI values between judokas and sedentary ($p < 0.05$).

Training volume

The judokas were training on average 12.4 ± 1.2 hours per week.

Menarche age and menstrual disorders:

The achievement menarche age was similar between judokas and sedentary (Table 2). 20% judokas exhibited cycle disorders (secondary amenorrhea).

Table 2: Percentage and number of women reaching the threshold reflecting the ED and having menstrual disorders. The age of menarche is delayed (mean and standard deviation).

	Percentage SCOFF-F positive (n)	Percent Cycle Disorder (n)	Age of menarche (year)
sedentary	0 (0)	5 (1)	$13,2 \pm 1,0$
judokas	70 (14)	20 (4)	$13,9 \pm 1,6$

Questionnaire

30% of judokas resorted to vomiting, laxatives and sauna to lose weight. 50% of judokas perceived pressure to lose weight. This pressure is lowering in sedentary. 25% of judokas were feeling pressure to lose weight, this pressure from to 10% of coaches, 25% of their training partners and 25% themselves.

Feeding habits

70% of judokas (14) had a positive test SCOFF-F. 20% of sports who had a positive test SCOFF-F reported having menstrual disorders.

The aim of our study was to evaluate the prevalence of ED in a population of sports practicing Judo at a national level.

DISCUSSION

Most studies have shown that the risk of developing ED was greater in sports compared to the sedentary that showed no ED.

In our study, the judoka with a positive test SCOFF-F also were suffering from disruption of the menstrual cycle.

The combination of ED, menstrual cycle, osteoporosis, known as the Female Athlete Triad, can have deleterious health consequences, it seems important that the judokas with eating and menstrual disorders have medical monitoring full.

CONCLUSIONS

Despite a relatively small number of subjects compared to other foreign studies, this study provides interesting information on the prevalence ED in an Algerian sports population nationally. Our results are in agreement with the foreign literature. The prevalence of ED would be greater among judokas than among sedentary.

Moreover, it seems important, in the interests of prevention, the judokas from a certain level of performance have regular monitoring including a psychological evaluation and nutritional monitoring judokas, as is theoretically required in the longitudinal monitoring of judokas registered in the high-level lists.

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