Cognitive disorders among boxers which moved mild traumatic brain injury

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OBJECTIVE Identify the nature and degree of cognitive disorders among boxers which moved mild traumatic brain injury.
METHODS We examined 32 amateur boxers, duration ranged from 5 to 14 years (champions and winners of championships of Ukraine among adults). The age range varied from 18 to 26 years. Surveyed the boxers were in the preparatory period. The number of boxing matches ranged from 51 to 176, the total number of traumatic brain injury in the form of knock-down which moved during the sports career ranged from 2 to 15. Control group consisted of 30 men aged 18 to 25 years who did not have a history of deferred traumatic brain injury. To assess cognitive function using standard clinical scale: Mini-mental State Examination (MMSE), Frontal Assessment Battery (FAB), clock drawing test.
DISCUSSION & CONCLUSION Mild cognitive disorders occurred in 14 boxers that had a history of one or more mild traumatic brain injuries. Most often, this group of patients complained about the deterioration of memory and bad sleep. Mild cognitive disorders showed a decrease of concentration, short-term memory disorders. There have been increased fatigue, and slow pace of work as it completes the tests. In the control group cognitive disorders had not been detected. Conclusions. Mild cognitive disorders that may cause concern about the patient and decrease the quality of life found in amateur boxers middle-level skills in 43,8% of cases. Their objective will require the use of new sensitive neuropsychological techniques.
KEY WORDS cognitive disorders, boxing, mild traumatic brain injury

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Does overweight lead to different perceptions of basic psychological needs satisfaction?

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OBJECTIVE The systematic alterations of lifestyles lead to a reduction of physical activity levels and to increased weight. This issue can be linked with the people motivation to exercise, and according to Self-Determination Theory (SDT) people motivation is a function of three "*fundamental nutriments*": the basic psychological needs of autonomy, competence, and relatedness. The purpose was to study the relation between body mass index (BMI) and basic psychological needs (BPN), and look at the differences between groups with normal weight and overweight.
METHODS 371 exercisers from private fitness centers (252 females, 119 males) with 32.4±11.7 years of age and different levels of exercise experience participated in this study. The Portuguese version of the Basic Psychological Needs in Exercise Scale (BPNES) and Body Mass Index (BMI) as an international classification (mild thinness and normal weight: 17-24.99; pre-obese and obese class I: 25-34.99) was used.
DISCUSSION & CONCLUSION Results showed low correlation between BMI-Competence (r=-0.039; p=0.451), BMI-Autonomy (r=-0.054; p=0.297) and BMI-Relatedness (r=-0.035; p=0.496). Results also indicated no significant difference between Group 1 (mild thinness and normal weight) and Group 2 (pre-obese and obese class I) in perceptions of: Competence (t=0.887; p=0.376), Autonomy (t=1.087; p=0.278), Relatedness (t=1.282; p=0,201). Apparently, these findings revealed that people with normal weight and overweight have the same perception about the satisfaction of their basic psychological needs. Both groups revealed high levels of competence (Group 1: M=3.94±0.46; Group 2: M=3.89±0.47), autonomy (Group 1: M=4.03±0.56; Group 2: M=3.98±0.56) and relatedness (Group 1: M=4.01±0.55; Group 2: M=3.93±0.57).
KEY WORDS Exercise Psychology, Self-Determination Theory, Basic Psychological Needs, Body Mass Index

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Body mass index and behavioral regulation- an overweight person is or is not less self-determinate than normal weight person

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OBJECTIVE According to Self-Determination Theory (SDT) more internalized regulated types of behaviour lead to feelings of self-determination, and consequently more maintenance on the chosen activity. In others words, most people engage in exercise for extrinsic reasons, but if they do not enjoy the activity or discover inherent satisfactions they are

unlikely to persist at it. Therefore, the purpose of this work was to study the relation between body mass index (BMI) and relative autonomy index (RAI), and look at the differences between groups with normal weight and overweight.
METHODS 115 exercisers in private fitness centers (75 females, 40 males), with 30.4±9.8 years of mean age and different levels of exercise experience participated in this study. To assess exercisers motivation Behavioural Regulation in Exercise Questionnaire-2 (BREQ-2) was used. Also the Portuguese version (BPNESp) and relative autonomy index (RAI) and Body Mass Index (BMI) as an international classification (normal weight: 18.5-24.99; pre-obese: 25-29.99) was used. Exercisers were randomly approached by researchers before exercise session.
RESULTS Results showed that there was no significant correlation between BMI and RAI (r=-0.109; p=0.245). Results also showed that there was no significant difference between Group 1 (normal weight: M=14.37±2.5) and Group 2 (pre-obese: M=13.88±3.5) in self regulation behavior (t=0.817; p=0.415).
DISCUSSION & CONCLUSION Apparently, these findings revealed that both groups regulate their behavior to autonomous forms (intrinsic motivation), and experience more feelings of self-determination. These results are not consistent with previous study which revealed that exercisers with higher IMC were more external regulated than the lower IMC exercisers.
KEY WORDS Exercise Psychology, Self-Determination Theory, Behavioral Regulation, Body Mass Index

Mental training in a psychomotor task performance

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OBJECTIVE Imagery is considered to be one of the most popular performance enhancement techniques or psychological skills because of its versatility in effecting several different outcomes. Aim of the present study was to investigate whether individualized imagery interventions had an effect on motor task performance. Output measures were velocity (time) and mistake frequency in a computer car race game.
METHODS Forty-four undergraduate students (M-age = 21.7±2.69 yrs) volunteered for the present study. Participants were randomly assigned to one of three groups: Experimental Group 1 (Exp1) was submitted to a motor training process (completed 10 sessions of 5 game trials); Experimental Group 2 (Exp2) to a motor and mental practice program (after 5 imagery sessions, they practiced 5 sessions of 5 game with mental imagery training after the completion of each trial followed by a 3 min interval) and Control Group did not have any activity between initial and final evaluation. An imagery script was created for imagery practice. This included the following images: image the movements and feelings during race preparation, mental race practice and arriving at the end of the race.
RESULTS We found significant differences in time between Pre and Post Test in both Experimental Groups, (p=0.00) with smaller times in post test. Control Group had no significant differences (p=0.06). We also found significant differences between pre and post test in Group Exp2 - Mistake I -(bumping one time) evaluation ($p<0.05$). We didn't found significant differences between group Exp1 and Exp2 ($p>0.05$).
DISCUSSION & CONCLUSION Considering that Group Exp2 had half of motor practice time, this supports the hypothesis that imagery facilitated performance in this particular task. This study provides evidence for practitioners who wish to use imagery interventions to enhance performance.
KEY WORDS Imagery, Performance, Training

Effects of maternal walking, voluntary running and forced swimming during pregnancy on anxiety reaction in rat offspring

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OBJECTIVE The beneficial effects of physical activity and exercise on brain functions and psychological behavior such as control of depression and anxiety are well documented. In this study the effects of maternal walking, voluntary running (WVR) and forced swimming (FS) during pregnancy on anxiety reaction in offspring was evaluated.
METHODS The pregnant female Wistar rats (n=30, 10 for each group) were randomly assigned into three groups: the sedentary control group, WVE group and the FS group. Each of the WVR rat was given access to a running wheel which was freely rotated against a resistance of 100g, for during pregnancy. Also the swimming pool was filled with water at 32◦C and the rats in the swimming group were forced to swim for 10 min once a day for 5 days. After delivery of mothers and pops reach to 2 month age, Elevated plus Maze (EPM) test was used to study the anxiety reaction by measure of time spent and number of entrances to open arms.