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INTRODUCTION: A removable intraoral device is often manufactured in hard acrylic that is placed over the incisal and occlusal surfaces of the teeth (1). Currently the state of competitive anxiety is mostly observed as a specific situation constructed multidimensionally with a component both somatic and cognitive being that this situation affects the motor and cognitive performance of the athletes during the competition (2). This study aimed to analyze the changes in the state of anxiety with the use of intraoral devices in Golf athletes.

MATERIALS AND METHODS: After study approval by the Ethic Commission of the Cooperativa de ensino Egas Moniz, athletes from the Centro Nacional de Formação de Golfe do Jamar (CNFGJ), (Fig. 1), were invited to participate in this study. Following the informed consent, the Diagnostic Criteria for Temporomandibular Disorder (DC/TMD) was applied. In order to ensure anonymize, all data were coded. Individualized intraoral devices (IOD) were developed for each athlete (Fig. 2). Athletes held a 9-hole tournament with two phases: one phase without (WtIOD) and another with the use of the IOD (WIOD) (Fig. 3). To analyze the stress levels, it was requested the filing of the Competitive State Anxiety Inventory-II (CSAI-II) questionnaire 30 minutes before the start of the tournament (BT) and at the end of the tournament (AT). Linear mixed effect models were used to evaluate the effect of the use the intraoral device, evaluation moment and interaction between them and the logarithm of anxiety levels. Significance of these effects were assessed through the analysis of type III variance with Kenward-Roger approximation for the number of degrees of freedom.



FIGURE 1 - Centro Nacional de Formação de Golfe do Jamar – Lisboa (CNFGJ).

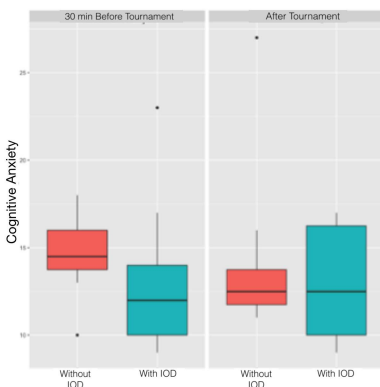


FIGURE 2 - IOD after obtaining Centric Relation and occlusal adjustments

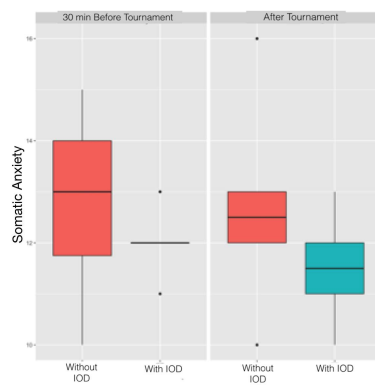


Figure 3 - Athlete preparing the shot in the 9-hole tournament

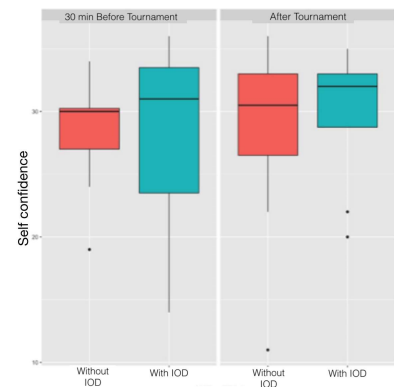
RESULTS: The sample was composed of 8 athletes of the CNFGJ, with an average age of 27.3 ($\pm 7,32$) years. The model developed to evaluate the effect of the IOD, evaluation season and their interaction on the anxiety state showed not to be significantly different from the null model ($c^2(3) = 7.5918, p < 0.055$).



GRAPH 1: Box plot Graph of quartiles related to the cognitive anxiety levels with and without the use of the IOD 30 minutes before the tournament and after the tournament



GRAPH 2: Box plot Graph of quartiles related to the somatic anxiety with and without the use of the IOD 30 minutes before the tournament and after the tournament



GRAPH 3: Box plot Graph of quartiles related to the self confidence with and without the use of the IOD 30 minutes before the tournament and after the tournament

DISCUSSION AND CONCLUSION: The use of IOD didn't change in subjective anxiety levels. Most significant larger samples are required to confirm these results.

References:
 (1) Okeson, J. P. (2013). Management of Temporomandibular Disorders And Occlusion (Vol. 7th).
 (2) Gould, D., Greenleaf, C., & Krane, V. (2002). Arousal-anxiety and sport behavior. In T. S. Horn (Ed.), Advances in sport psychology (2nd edn., pp.207–280). Champaign, IL: Human Kinetics.

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