The long-term impact of Mental Burnout on attentional cognitive performance among Anaesthesia and Intensive Care practitioners: a pilot, time-series, multi-centric study.

Sig.ra CHIARA CAPRA (1), Dott.ssa F. ELEONORA ORENA (2), Dott. DARIO CALDIROLI (2), Dott.ssa TANIA BIANCO (2), Dott. CARLO CAPRA (3)

- (1) University of Greenwich, London, Inghilterra.
- (2) Fondazione I.R.C.C.S. Istituto Neurologico Carlo Basta, Milano, Italia.
- (3) Università degli studi di Varese, Varese, Italia.

Argomento: Altro

Introduction: Chronic stress is a common condition within the Medical setting, especially in Anaesthesia and Intensive Care practice [1]. This can result in Mental Burnout syndrome, which primarily weakens cognition [2]. Although the impact of mental burnout on cognitive performance has been widely investigated, its long-term role on cognitive performance has not received attention, yet. Thus, expanding on Orena E. et al [3], this pilot study aims at longitudinally evaluating the impact of mental burnout on attentional cognitive performance among Anaesthesia and Intensive Care practitioners.

Methods: 40 Anaesthetists Intensivists were recruited from Anaesthesia and Intensive Care Unit of six hospitals. Attentional cognitive performance was tested by means of reaction times (RTs), preand post-shift, with a five-subtest computerized neuropsychological battery. The burnout level was tested with the Maslach Burnout Inventory-Human Service Survey (MBI-HSS), combining its three subscales to obtain two different burnout groups (Non-at-risk & At-risk). The same procedure was repeated for three different points at time (T1:July; T2:September; T3:December).

Results: At all 3 times, t-tests showed a worsening in performance in the post-shift condition (p<.001). RM-ANOVA showed a significant effect of at-risk burnout group (p<.001). In T3, only 23 participants were followed longitudinally. 33.3% of anaesthetists became at-risk from T1 to T3, whereas at-risk anaesthetists in T1 remained at-risk. A t-test found no significant difference of RTs over time.

Conclusion: Anaesthetists experience mental fatigue during their shift, resulting in worsening in attentional performance, specifically within the at-risk burnout group. Anaesthetists with at-risk level of mental burnout remain at-risk, whereas risk of mental burnout tends to increase over time, resulting in a constant worsening performance. Longitudinal research should be done and long-term interventions should be taken to reduce this phenomenon.

Reference: **[1]**Gurman, J Clin Monit Comput, 2012 **[2]**Maslach, Annu. Rev. Psychol, 2001 **[3]**Orena, Saudi Journal of Anaesthesia, 2013.