

## The impact of surgical masks on emotion recognition in patients with movement disorders

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*Introduction:* Studies have shown that the use of surgical masks to contrast the spread of the Covid-19 pandemic makes it difficult to read emotions on other people's faces [1]. To date, little is known about the impact of surgical masks on emotion recognition in patients with movement disorders.

*Objective:* The aim of the experiment was to evaluate the different impact of surgical masks on emotion recognition in movement disorders patients.

*Methods:* 16 subjects (6 Male; aged 26-82), 5 Parkinson's disease patients (PD), 3 functional motor disorder patients (FMD) and 8 healthy controls (HC) were enrolled.

Two different Facial Emotion Recognition Tasks were administered: no masked face (NM), masked face (MF). Subjects had to respond by pressing a key to discriminate between neutral, sad, happy, or angry faces. The procedure consisted of two experimental blocks composed by 96 trials.

*Results:* Non-parametric analysis showed that patients made more errors in discriminating emotions in MF condition than HC [(Mean ± S.D.) Patients vs HC : 21.74 ± 8.15 vs 14.06 ± 4.72 p < 0.05]. In particular patients made more error in recognition of happiness (15.10 ± 8.60 vs 4.68 ± 4.69 p < 0.05). No significant differences were found in error rate in other emotions.

*Conclusions:* Emotional recognition deficits that patients with movement disorders have experienced during pandemic, might have greatly influenced their social cognition abilities and quality of life.

### References

[1] Carbon CC. Wearing Face Masks Strongly Confuses Counterparts in Reading Emotions. *Front Psychol.* 2020;11(September):1–8.