

Reduced sensitivity to social pain in functional neurological disorders

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Introduction: Functional Motor Disorders (FMDs) are common and disabling conditions impacting the patients' quality of life [1,2]. Nowadays, the symptoms are best explained according to the biopsychosocial framework, where predisposing, precipitating and perpetuating factors interact leading to symptoms' manifestation [3]. The social context contributes to the disorder, although it is unknown how patients respond in different social contexts. Investigating those reactions might help better understand the disorder.

Objective: To identify patterns of clinical variables as predictors of fall risk in PD patients through Machine Learning (ML) algorithms.

Methods: 31 FMDs patients (23 females, median years: 47 [41.50-50]) and 31 matched healthy subjects (24 females, median years: 43 [31-52]) underwent inclusion (I) and exclusion (E) conditions of the Cyberball game in counterbalanced order. Participants took part in a virtual ball-tossing game with two other participants. Out of 30 throws, they received 33% of them (I), or only two throws (6.7%) at the beginning of the game (E). Measures of fundamental needs and mood were collected after I and E games and 5 minutes after exclusion (R). R was the reference used to correct the two gaming conditions, calculating the corrected inclusion one ($IR = I - R$) and the corrected exclusion one ($ER = E - R$).

Results: 31 FMDs patients (23 females, median years: 47 [41.50-50]) and 31 matched healthy subjects (24 females, median years: 43 [31-52]) underwent inclusion (I) and exclusion (E) conditions of the Cyberball game in counterbalanced order. Participants took part in a virtual ball-tossing game with two other participants. Out of 30 throws, they received 33% of them (I), or only two throws (6.7%) at the beginning of the game (E). Measures of fundamental needs and mood were collected after I and E games and 5 minutes after exclusion (R). R was the reference used to correct the two gaming conditions, calculating the corrected inclusion one ($IR = I - R$) and the corrected exclusion one ($ER = E - R$).

Conclusions: The social context plays a fundamental role in predisposing and maintaining FMDs, but patients do not fully recognize a socially threatened situation. Such perception could be due to their altered expectations and beliefs [5,6].

References:

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