

Relations between psychological avoidance, symptom severity and
embarrassment in essential tremor (Brief report)

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Abstract

Research with community- and clinic-based samples of essential tremor (ET) sufferers has identified embarrassment as a common consequence of the condition, leading to social anxiety and avoidance. We sought to ascertain whether psychological avoidance was related to embarrassment in ET, and whether any such relation was independent of symptom severity. Establishing whether psychological avoidance is related to embarrassment in ET would be a first indicator that mindfulness-based therapeutic approaches may be appropriate for sufferers of ET. Ninety-two participants were recruited through online support groups run by the International Tremor Foundation and the UK National Tremor Foundation, with the self-reported inclusion criteria being a clinical diagnosis of ET. Participants completed 3 validated questionnaires concerning ET-related embarrassment, ET symptom severity and psychological avoidance. Females had slightly higher embarrassment scores than males, and symptom severity and psychological avoidance made significant moderate (each accounting for 10-15% of variance approx.), but independent contributions to embarrassment scores. These results suggest that to address the potentially debilitating effects of embarrassment in ET, both symptom severity and psychological avoidance need to be targeted, with intervention research being required.

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Introduction

Essential Tremor (ET) is a common movement disorder (prevalence estimates 1-5% approx.¹), which can have an onset in childhood, although incidence is higher in older adults¹. It is characterised by tremor associated with either voluntary movement, or voluntary maintenance of posture², where cause is idiopathic. Research with community- and clinic-based samples of ET sufferers has identified embarrassment as a common consequence of the condition, leading to social anxiety and avoidance³⁻⁴. Traub and colleagues⁴ found that embarrassment was only modestly related to self-reported tremor severity, and was not related to direct clinical assessment of severity. On the other hand, embarrassment was an important factor in medication uptake, irrespective of symptom severity³. These findings raise the possibility that therapeutic interventions aimed at directly addressing embarrassment in ET may lead to significant improvements in quality of life. Mindfulness-based therapeutic approaches that focus on acceptance, rather than avoidance, of negative emotions in the service of valued action have been increasingly used in a wide variety of clinical and mental health settings^{5, 6}, including patients with social anxiety. We sought to ascertain whether psychological avoidance was related to embarrassment in ET, and whether any such relation was independent of symptom severity. Establishing whether such a relation exists would be a first indicator that mindfulness-based therapeutic approaches may be appropriate for sufferers of ET.

Method

Participants.

Participants in the present research were recruited through online support groups run by the International Tremor Foundation and the UK National Tremor Foundation, with the self-reported inclusion criteria being a clinical diagnosis of ET. Participants were informed that the study concerned ET, social issues and levels of emotional acceptance. Out of 124 respondents, 92 completed all questionnaires (33 males, 59 females) and were included in the final sample. The respondents were from North America (46%), the UK (20%) and mainland Europe (34%). The mean age was 49y (SD=13y), and the mean age of onset was 21y (SD=16.4y), thus yielding a sample biased towards younger participants with childhood onset, relative to clinic-based samples⁷. The study was given ethical approval by Lancaster University Ethics Committee, and online informed consent was obtained from participants.

Measures.

Symptom severity was measured by the validated Columbia University Assessment of Disability in Essential Tremor (CADET) scale⁷. Embarrassment was measured by the validated Essential Tremor Embarrassment Assessment scale (ETEA)⁴. Psychological avoidance was measured by the validated Acceptance and Action Questionnaire II (AAQ-II)⁶.

Results and Discussion

Mean symptom severity score was 42.8 (SD=19.7), similar to the validation samples⁷. Mean embarrassment score was 42.5 (SD=11.5), a higher level than that obtained in the validation sample, which may be partially explained by the higher number of younger adults in the present sample³. The mean psychological avoidance score was 48.0 (SD=11.9), slightly worse than found in community samples⁶.

A generalised linear modelling approach using forward fitting was utilised to establish the model of best fit using the Bayesian Information Index criterion. The factors of gender, age, age of onset, CADET score and AAQ-II score were examined as predictors of embarrassment (E TEA). The model of best fit contained the main effects of gender (Intercept, $\beta=53.1$, $SE=5.4$; gender, $\beta=-5.1$, $SE=2.2$, $p=.02$; females are the reference category), CADET score ($\beta=.15$, $SE=.05$, $p=.007$) and AAQ-II score ($\beta=-.31$, $SE=.09$, $p<.0001$; higher AAQ-II scores reflect greater flexibility). Thus, females had slightly higher embarrassment scores than males, and symptom severity and psychological avoidance made significant moderate (each accounting for 10-15% of variance approx.), but independent contributions to embarrassment scores. These results suggest that to address the potentially debilitating effects of embarrassment in ET, both symptom severity and psychological avoidance need to be targeted, with intervention research being required. Limitations of the work include the self-selection of the sample, such that patients who find ET more debilitating are more likely to join or monitor support groups, as well as the lack of expert validation of diagnosis^{1, 8}.

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References

1. Louis, ED, Ferreira JJ. How common is the most common adult movement disorder? Update on the worldwide prevalence of essential tremor. *Mov Disord* 2010; 25: 534-541.
2. Deuschl G, Elble R. Essential tremor – neurodegenerative or nondegenerative disease towards a working definition of ET. *Mov Disord* 2009; 24: 2033-2041.
3. Louis, ED, Rios, E. Embarrassment in essential tremor: Prevalence, clinical correlates and therapeutic implications. *Parkinsonism Rel Disord* 2009; 15: 535-538.
4. Traub RE, Gerbin M, Mullaney MM et al. Development of an essential tremor embarrassment assessment. *Parkinsonism Rel Disord* 2010; 16: 661-665.
5. Hayes, SC, Luoma, JB, Bond, FW et al. Acceptance and Commitment Therapy: Model, processes and outcomes. *Behav Res Ther* 2006; 44: 1-25.
6. Bond, FW, Hayes, SC, Baer, RA et al. Preliminary psychometric properties of the Acceptance and Action Questionnaire-II: A revised measure of psychological inflexibility and experiential avoidance. *Behav Ther* 2011; 42: 676-688.

7. Louis ED, Barnes LF, Wendt MPH et al. Validity and test-retest reliability of a disability questionnaire for essential tremor. *Mov Disord* 2000; 15: 516-523.

8. Louis ED, Thawani SP, Andrews HF, Prevalence of essential tremor in a multi-ethnic, community-based study in northern Manhattan, New York, N.Y. *Neuroepidemiology*; 32: 208-214.

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