

Vision-related symptoms as a clinical feature of Chronic Fatigue Syndrome/Myalgic Encephalomyelitis? Evidence from the DePaul Symptom Questionnaire

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Chronic Fatigue Syndrome (CFS) or Myalgic Encephalomyelitis (ME) is a debilitating disorder, affecting at least 250,000 people in the UK. Marked by debilitating fatigue, its aetiology is poorly understood and diagnosis controversial. A number of symptoms overlap with other illnesses with the result that CFS/ME is commonly misdiagnosed. It is important therefore that significant clinical features are investigated. People diagnosed with CFS/ME consistently report that they experience vision-related symptoms associated with their illness¹⁻³ with some of these reports being verified experimentally⁴. Although vision-related symptoms may represent a significant clinical feature of CFS/ME that could be useful in its diagnosis, they have yet to be included in clinical guidelines.

A recently developed, standardised measure designed to assess core CFS/ME symptoms, The DePaul Symptom Questionnaire (DSQ)⁵, includes 4 vision-related items: eye pain, sensitivity to bright lights, unable to focus vision and/or attention, loss of depth perception. For each item, respondents rate the symptom frequency along with the associated severity/bother on a 5-point scale. Here, we report DSQ vision-related item responses for 59 individuals (39 females, 20 males) who, after completing the DSQ, met its criteria for diagnosis of CFS/ME. Respondents ranged in age from 22-69 years (mean = 46 years; SD = 11). All reported that they had no history of eye disease. Responses on each item revealed that vision-related problems were frequently experienced, the most frequent being sensitivity to bright lights (92%) followed by being unable to focus vision and/or attention (88%) and eye pain (86%). Loss of depth perception (61%) was least frequent. The more frequent the symptom, the greater the apparent severity/bother (Figure 1).

We explored each set of 4 items (Frequency and Severity) to consider whether they could be used to provide overall frequency and severity assessments of vision-related symptoms. Such a consideration would help with the standardized assessment and establishment of norm data relating to visual-related symptoms associated with ME/CFS within and across populations. We considered the factor structure of the frequency and severity data separately, and found that parallel analysis suggested 1 factor on each occasion, with all factor loadings (.34 to .83) above the criteria of .32⁶. Alpha coefficients for the scales exceeded the acceptable criteria of $\alpha = .70$; Frequency, $\alpha = .72$; Severity, $\alpha = .71$. Factor scores for both sets of items shared a correlation of $r = .88$, $p < .001$; therefore sharing 64% of the variance, suggesting the two measures share a very close relationship. No significant differences were found for the factor scores for sex (Frequency, $t = -1.44$, $p = .155$;

Severity, $t = -1.43$, $p = .160$), nor was there a significant correlation for age (frequency, $r = -.04$, $p = .777$; severity, $r = -.06$, $p = .652$).

In summary, responses of individuals with CFS/ME to the visual items included in the DePaul Symptom Questionnaire indicated that they experienced frequent and often severe vision-related symptoms associated with their illness. These findings are in agreement with those of previous self-report studies¹⁻³ and recent experimental evidence for problems related to visual attention in those with CFS/ME⁴. They add to an emerging body of evidence that vision-related symptoms represent a significant clinical feature of CFS/ME that may provide insights into its aetiology and prove useful in its diagnosis. As such, they warrant further experimental study and should not be overlooked by CFS/ME diagnosticians.

References

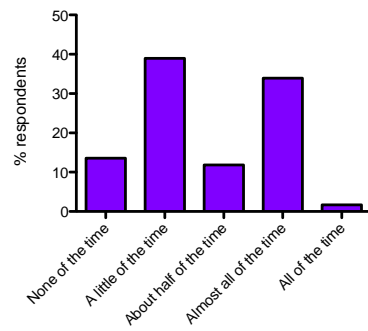
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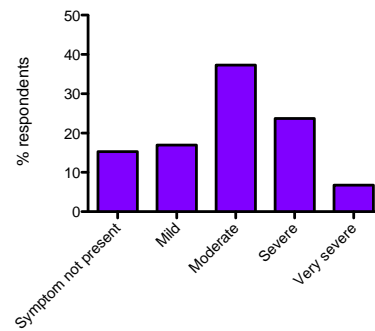
Throughout the past 6 months,
how often have you had this symptom?

Throughout the past 6 months,
how much has this symptom bothered you?

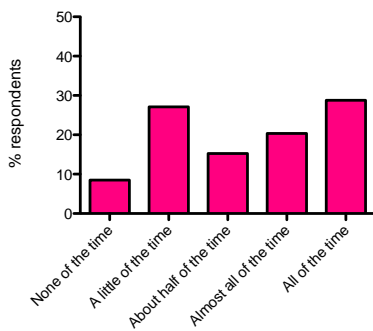
(a) Eye pain: frequency



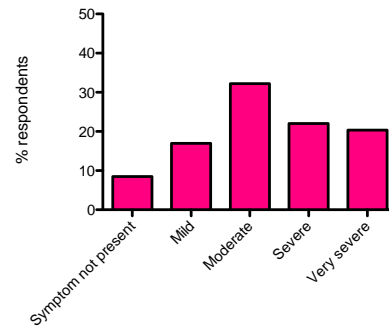
(b) Eye pain: severity



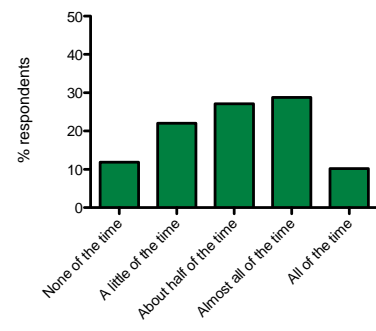
(c) Sensitivity to bright lights: frequency



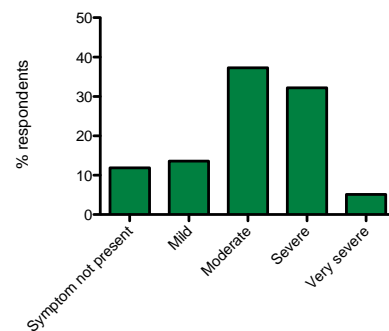
(d) Sensitivity to bright lights: severity



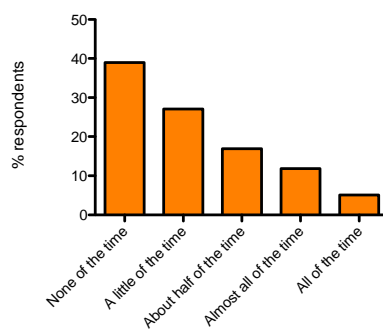
(e) Unable to focus vision and/or attention: frequency



(f) Unable to focus vision and/or attention: severity



(g) Loss of depth perception: frequency



(h) Loss of depth perception: severity

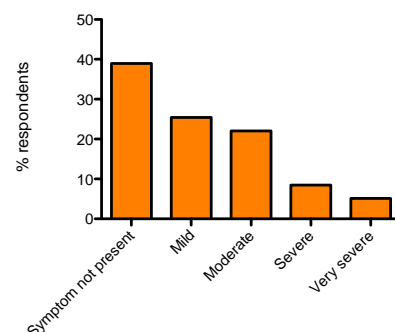


Figure 1. CFS/ME patient responses on each visual item of the DSQ. Left panel: Respondents rated the frequency with which they experienced each vision-related symptom from '0: none of the time' to '4: all of the time'. Right panel: Respondents rated the bother associated with each symptom from '0: symptom not present' to '4: very severe'.