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## High Prevalence of Untreated Depression in Patients Accessing Low-Vision Services

News about untreatable sight loss is devastating. Clinicians have an important role to play in determining when and how information is provided, gauging how effectively patients are likely to cope, and recognizing when someone needs to access treatment for their psychological distress. It is true that some resilient individuals are able to adjust, eventually, to their new situation, but many others find the myriad of practical problems associated with sight loss and worry about the future overwhelming, their psychological well-being suffers, and many sink into chronic depression. Depression is common in those with a visual impairment and particularly so in those seeking help at low vision rehabilitation clinics, but just how prevalent is it and are people getting the help they need?

Large-scale epidemiologic studies indicate that about 13% of people with a visual impairment have significant depressive symptoms, about 3 times greater than in the general population.<sup>1</sup> In those accessing low vision rehabilitation clinics the prevalence is known to be higher at about 30%.<sup>2</sup> However, these estimates should be treated with caution. Small sample sizes and volunteers rather than consecutive attendees may underestimate the scale of the problem because people with depression are less likely to volunteer. The data in this report are from the Depression in Visual Impairment Trial (DEPVIT), a multicenter, randomized controlled trial that screened >1000 consecutive attendees at low vision rehabilitation clinics in Britain (ISRCTN46824140).<sup>3</sup> Two important aims of the study were to estimate the prevalence of significant depressive symptoms in consecutive attendees at National Health Service (NHS) funded low vision rehabilitation services in Britain and to identify the proportion currently accessing treatments for depression.

Participants were consecutive adult patients attending 1 of 16 low vision rehabilitation services in Britain between November 2011 and March 2014. Fourteen of the services were provided in a primary care setting in Wales and the others were hospital-based services in London. All of the clinics gave a routine preassessment survey to all patients before their clinic visit. The survey included the Geriatric

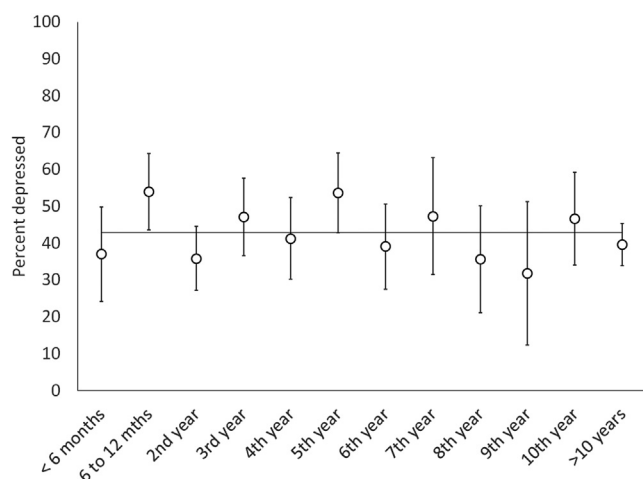
Depression Scale (GDS-15) to quantify depressive symptoms, a short version of the National Eye Institute Visual Function Questionnaire (7-item NEI-VFQ) and a single question from the Short Form Health Survey to assess overall health. To ensure that data collection was standardized across centers, clinicians attended a 1-day training event to improve their understanding of depression and all study procedures. For those who consented, information on date of birth, gender, ethnicity, medical illness, time since vision loss first identified, primary ocular diagnosis, corrected Early Treatment Diabetic Retinopathy Study logarithm of the minimum angle of resolution acuity and threshold reading ability (Bailey-Lovie Word Reading Chart) was recorded at the clinic. In line with the large-scale Medical Research Council assessment of older adults study, we adopted the relatively conservative cutoff score of  $\geq 6$  on the GDS-15 to identify those with significant depressive symptoms.<sup>1</sup> People who screened positive for depressive symptoms were also asked if they were receiving treatment for their low mood.

Data were analyzed on STATA Ver 12. The prevalence of depressive symptoms together with 95% CIs was computed by the exact binomial method. Ethical approval was obtained from the NHS National Research Ethics Service (11/WA/0014).

During the 30-month recruitment period, a total of 1323 consecutive adult patients attended the low vision rehabilitation clinics. Of these, consenting patients 1008 (76.2%) provided complete datasets. The mean (SD) age of consenting patients was 74.4 (16.1) years, 61.7% were women, and 52.8% had a diagnosis of age-related macular degeneration. Overall, the prevalence of significant depressive symptoms, as measured by a GDS-15 score of  $\geq 6$ , was 43% (95% CI, 40%–46%). And, of those who screened positive for significant depressive symptoms, 74.8% (95% CI, 79.2%–70.7%) were not being treated for their depression. [Table 1](#) (available at [www.aaojournal.org](http://www.aaojournal.org)) describes the prevalence of significant depressive symptoms according to study location and patient characteristics. Interestingly, a regression analysis indicated that the prevalence of significant depressive symptoms was not related to visual acuity or to the time since sight loss was first identified. [Figure 1](#) describes the prevalence of significant depressive symptoms as a function of time since the onset of sight loss and it seems that depression does not resolve over time. However, because this was a cross-sectional study, we cannot rule out the possible effects of time.

The prevalence of clinically significant depressive symptoms in 43% of those seeking help for sight loss in Britain is striking. To put the findings into perspective, 45% of those with a diagnosis of cancer who are about to undergo chemotherapy have clinically significant depressive features.<sup>4</sup> Clearly, people seeking help for their visual problems are a high-risk group for depression, but the fact that three-quarters of those who screened positive were not receiving any form of treatment suggests that depression is being routinely overlooked in this vulnerable group. We are only aware of 2 low vision services in Britain that screen people regularly for depression. People are not getting the help they need.

Addressing a patient's needs should include more than improving their acuity or other aspect of visual function. Depression is a major cause of disability in its own right; it reduces the effectiveness of low vision rehabilitation interventions, quality of life, and even life expectancy. Depression is a medical condition, treatments can be effective, and screening is relatively straightforward. In Britain, the National Institute for Health and Clinical Excellence (NICE) recommend screening high risk groups by



**Figure 1.** Prevalence of depression as a function of time since sight loss based on data from 1008 people screened. Error bars describe the 95% confidence interval (CI). The thick horizontal line describes the overall prevalence figure of 43%.

asking a few simple questions which are provided in Table 2 (available at [www.aojournal.org](http://www.aojournal.org)).<sup>5</sup> Alternatively, questionnaires such as the GDS-15 or PHQ-9 are excellent screeners that can be administered in <5 minutes.

Clinicians providing rehabilitation services want to improve the lives of their patients. We suggest that the introduction of depression screening and referral for treatment where appropriate may be a useful step forward.

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