The negative impact of undiagnosed depression in axial spondyloarthropathy

Sirs,

The true prevalence of depression is suspected to be underestimated as the diagnosis can persist undetected in a significant proportion of the population (1). The reasons for this are multifactorial but include under recognition of symptoms, difficulty accessing appropriate services, and societal stigma (2). Depression in axial spondyloarthropathy (axSpA) is known to be more prevalent than in the general population (3-5) and is associated with younger age, increased disease activity and lower levels of exercise (6, 7). Early identification of depression in the general population can result in improved quality of life and higher rates of clinical remission following treatment (8).

The aim of this analysis was to screen for undiagnosed depression in a cohort of patients with known axSpA. AxSpA patients attending the Rheumatology department in St James' Hospital between February and October 2020 were invited to complete the Patient Health Questionnaire 9 (PHQ-9) and the Hospital Anxiety and Depression Scale for Depression (HADS-D). Those with known depression were excluded from participation.

These validated Psychiatry tools to screen for undiagnosed depression (9) have previously functioned well in studies on mental health in rheumatic disease (10). Abnormal HADS-D scores (>11) or moderate PHQ-9 scores (>10) are considered clinically significant and suggestive of underlying depression.

The data were analysed for statistical significance using independent t-tests for continuous variables and a chi^2 test for independence or Fisher's exact test for categorical variables. A one-way analysis of variance analysis (ANOVA) determined significance of variation in outcomes between classification of HADs-D and PHQ-9 results. All necessary assumptions were met for each statistical test. A p-value of <0.05 was considered significant. Informed consent was obtained from all participants prior to participation. This study was approved by the St James'/ Tallaght Hospital Joint Ethics Committee.

Seventy-one axSpA patients were included, consisting of 70.4% (50) males and 29.5% (21) females, with mean age 47.9 years (SD 15.4, range 20–78) and mean disease duration 19.7 years (SD 14.3). 9.9% (7) of participants recorded abnormal HADS-D scores, while 23.9% (17) recorded moderate to severe PHQ-9 scores indicative of underlying depression. AxSpA females averaged higher mean HADS-D scores (7.5 *vs*. 4.8, p=0.01) than males, with abnormal scores in 19% (4) of females and 6% (3) of males. No significant differences were found in PHQ-9 scores between sexes.

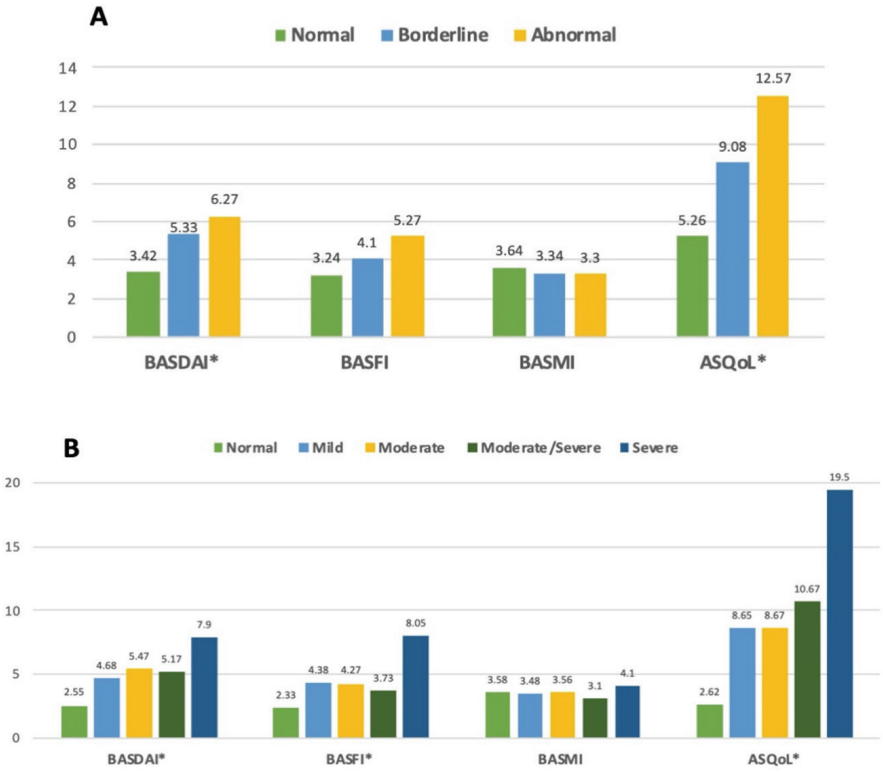

Fig. 1. Patient outcomes by classification with (**A**) HADS-D score and (**B**) PHQ-9 score, *indicates statistically significant differences between classification categories at the p<0.05 level.

Analysis revealed significantly worse BASDAI (6.27 *vs*. 3.42, p<0.01) and ASQoL scores (12.57 *vs*. 5.26, p<0.01) in patients with abnormal compared to normal HADS-D scores (Fig. 1). In PHQ-9 scores, significantly worse BASDAI (7.9 *vs*. 2.55, p<0.01), BASFI (8.05 *vs*. 2.33, p<0.01) and ASQoL (19.5 *vs*. 2.62, p<0.01) was noted in patients classified as severe compared to normal.

Elevated PHQ-9 and HADS-D scores concerning for undiagnosed depression, were frequently encountered in axSpA patients and were associated with higher disease activity and worse quality of life. Abnormal scores were more common in women with axSpA compared to men, which raises concerns around the high prevalence of undiagnosed depression and the impact on disease control in this population. The findings of this study would suggest that clinicians treating axSpA should consider mental health and potentially consider screening for depression in this population.

Use of self-administered surveys, such as the PHQ-9 and the HADS, are quick and effective options for rapidly screening axSpA patients in a busy Rheumatology department. During this study our investigators found use of these surveys often prompted discussions with the physicians about the importance of monitoring mental health. Given the considerable societal stigma surrounding mental health issues, use of such tools could help to break down barriers to these essential conversations and improve health literacy for our patients.

S. Maguire[1,2], *MB, BCh, BAO, MRCPI*
P. Gallagher[3], *RGN*
F. O'Shea[1,2], *MB, BCh, BAO, MRCPI*

[1]Deprtment of Rheumatology, St James' Hospital, Dublin;
[2]School of Medicine, Trinity College Dublin;
[3]Deprtment of Rheumatology, St Vincent's Hospital, Dublin, Ireland.

Please address correspondence to:
Sinead Maguire,
Department of Rheumatology,
St James' Hospital,
James' Street,
Dublin 8, Ireland.
E-mail: sinead.magu@gmail.com

ORCID iD: 0000-0002-1982-8962

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