Evaluating the use of PROMs in a spinal outpatient's department

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Objectives

- To compare PROMs data from patients attending the spinal outpatients' department in UHW with the general population.
- To understand whether PROMs are useful at reporting health status and patient metrics, and how they can be effectively implemented into care.

Introduction

Patient reported outcome measures (PROMs) are tools that assess a variety of things. For example, health, disability, quality of life, out treatment outcomes **(1)**. They assess patients holistically, enabling doctors to understand, biological, psychological, and social aspect of a patient's life. This can help when making decisions about treatments.

In the spinal outpatient's department in UHW, patients can respond to PROMs using the online British spine registry. However, data from the most recent annual review showed that preoperative PROMs were completed by 53% of patients who consented but for Post operative PROMs, only 28% of consenting patients completed them **(2)**

This study aims to understand whether PROMs are an effective way of reporting information about patients' symptoms, health and outcomes, and how they can be incorporated into every patients care.

Methods

- A prospective study of patients attending the spinal outpatient's department in UHW.
- All patients who consented were handed a paper questionnaire to complete whilst waiting for their appointment.
- A variety of PROMs were included, including but not limited to: EQ5D VAS, NDI, ODI, GAD7, PHQ9 and questions about demographics and life satisfaction.
- Responses were manually inputted into an excel spreadsheet and analysed using SPSS statistics.
- A literature search was also conducted to find normative data for the PROMs used.

Results

Results were collected from 100 patients. They had a mean age of 56 and the worst reported problem was back pain only (41%). 36.1% of patients had to cut down on their usual activities for more than 21 days over the previous 4 weeks and 48.5% reported their quality of life as bad or very bad. With regards to health status, a selection of the PROMs were compared to normative data (seen in Table 1) our sample scored a mean of 44.7% on the EQ5D VAS, which shows a low view on overall health. This result is significantly lower than the average population. When assessing disability, our sample had a significantly worse disability score (P< 0.001). Finally, the GAD7 and PHQ9 also reported significantly higher scores than the normative data, highlighting that our sample had worse mental health than average.

The tolerance and completion of the Questionnaire was also investigated. As seen in Table 2, 85% of the forms were completed either fully or with only 2 questions missed. Out of all questions that were missed, the most common to be skipped were the BSR, MSPQ and PHQ9.

Table 1: Examples of sample data and T test scores against normative mean

PROMs	Sample mean	Normative (mean)	T score	P value
EQ5D VAS	44.67 (SD24.77)	82.5 (SD 17) **(3)**	-14.73	0.001
NDI	48.4% (SD 24.6)	33% **(4)**	5.008	0.001
GAD7	10.79 (SD 6.49)	Women= 3.2 Men= 2.7 **(5)**	Women= 10.908 Men- 11.627	0.001
PHQ9	13.06 (7.26)	Women= 3.1 Men= 2.7 **(6)**	Women- 12.802 Men- 13.316	0.001

Table 2: Completion of the PROMs questionnaire

Completion	n
Fully completed	61
Stopped midway through	11
Skipped One PROMS/Question	14
Skipped Two PROMS/Questions	10
Skipped Three+ PROMS/Questions	4

Conclusions

Data showed that spinal injury patients who attended the outpatients' clinic did have more negative PROMs scores than the general population. PROMs are accurate at assessing health status and are easy to administer. They also help to gain a holistic view of patients. Literature has shown that there is an association between worse PROMs scores and recovery. One study in 2024, found that patients with a history of anxiety and depression had an increased risk of negative outcomes following lumbar spine surgery **(7)**. This supports the importance of understanding patients holistically when discussing treatment and care.

It was also found that in this spinal outpatients' department, paper questionnaires that are filled out in clinic have a higher completion rate than PROMs answered online using the BSR. This is something that could be studied further, to determine the most effective way to deliver PROMs, ensuring that all patients can benefit from them in their care. Overall, this project has found that spinal patients do have worse PROMs scores than average and that understanding these scores could aid in their care. Furthermore, paper questionnaires were an effective way to obtain this information.

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