Predicting health related quality of life improvements using EQ-5D following community-based musculoskeletal physiotherapy

Helen Robson BSc PGC MCSP

Clinical Lead North of England

Connect Health
A fundamental aim of physiotherapy is to improve health related quality of life (HRQoL).

Pain and physical function improve during physiotherapy management and EQ5D has been promoted as a HRQoL measure to be collected by physiotherapy.

Less is understood about how physiotherapy impacts on the individual EQ5D dimensions and the potential implications on our clinical practice.
Method

- 4112 patients received community-based musculoskeletal physiotherapy in five NHS community services.
- Patients completed EQ-5D measure on entry into the service and upon discharge.
- Patients were categorised based on (1) site of symptoms and (2) whether they responded to treatment based on their EQ-5D index improving by at least 0.1.
- Cohen’s d effect sizes were calculated based on the mean difference between pre- and post-treatment to show the magnitude of effect achieved in each dimension for responders and non-responders within each site of pain/injury category.
Results

- In those who responded to treatment (2793 patients, 67.5%), there were improvements seen across all EQ5D dimensions but different body areas saw different changes in individual dimensions.

- The largest changes in individual dimension scores were seen in:
  1. Pain/discomfort
  2. Anxiety/depression

- It was noted that the pre-treatment scores started higher in responders than non-responders for the above dimensions.
Conclusion

- This large multi-centre service evaluation shows community based physiotherapy is most successful at improving the pain/discomfort dimension of EQ5D.

- The most striking outcome of this study is that those likely to respond, in addition to having a high level of pain score at presentation also reported the highest levels of anxiety/depression at presentation.
Implications

- This may challenge thinking that those with high levels of anxiety/depression predict poor response to treatment.

- Additionally, these results suggest we need to consider whether the expression of high levels of anxiety and depression in conjunction with musculoskeletal pain is simply a reactive and therefore reversible response to the pain rather than an underlying mental health condition.

- OR is EQ5D a poor measure/insensitive to change where low levels of pain and/or anxiety depression exist?

- Further study is needed.