Interpreting changes in scores of the Recovering Quality of Life (ReQoL)

Authors: Anju Keetharuth, Michael Barkham and John Brazier

ReQoL™
Recovering Quality of Life

The University Of Sheffield.

Aims and objectives

The aim is to provide guidelines about the interpretation of ReQoL-10 scores within routine clinical practice. ReQoL-10 is a recently developed PROM to measure quality of life for people experiencing mental health difficulties.

Objectives:
- Compare three methods to calculate minimum clinical important difference (MCID) for the ReQoL-10.
- Provide cut-off scores to distinguish between a clinical and a non-clinical population.

Methods

Anchor-based method: Service users (n = 4266) were recruited in a baseline survey and completed a global rate of change question at follow-up . Mean change was calculated separately for those who got *"somewhat better"* and *"somewhat worse"* .

Reliable rate of change (Jacobson & Truax 1991)

$$SE(diff) = SD\sqrt{2} \; X \sqrt{(1-r)} \; X \, 1.28$$

Given the brevity of the ReQoL measure, a z-value of 1.28 associated with 80% confidence level is recommended (Wise 2003, 2004).

Distribution-Based Approach

MCID = 0.5 X standard deviation of scores (Walters 2009) using samples in Table 1.

Clinical population cut-off

The following formulae was used to discriminate between a clinical and a non clinical population using samples in Table 1

$$\frac{[(mean_{clin} \, X \, sd_{norm}) \, _+ \, (mean_{norm} \, X \, sdclin)]}{(sdnorm \, _+ \, sd_{clin})}$$

Results

"somewhat better" (n = 100)
mean change = 5.15
"somewhat worse" (n = 95)
mean change = -5.76

SE provides a reliability value of 5.25 (SD1 = 10.26 r = 0.92)
ReQoL-10 score must improve by 5 or more from pre- to post- therapy to show a reliable change.

MCID lies between 3.8 and 5.13

The clinical range is below 23-26.
Anyone with a score of 25 and above is considered non clinical.

Table 1 MCID based on distribution-based approach and cut-off scores using different samples for ReQoL-10

Samples	Distribution based approach	Clinical cut-off score
Secondary care n = 2856 v. (healthy online pop n = 200)	**4.86**	25.81
Secondary care + primary care n = 4266 v. (general online pop n = 1000)	**5.13**	24.78
Secondary care n = 2856 v. (general online pop n = 1000)	**4.86**	23.61
Patient population n = 400 v. (general pop n =1000) both recruited online	**3.80**	23.11

Conclusion

First, there is a difference between MCID and reliable change and the latter is to be used to interpret changes of scores at the individual level. Second, the various methods yielded a similar **MCID figure of 5** for ReQoL-10 but it is not always the case that the MCID calculated using different methods converge. It is still not clear which method to use in case of divergences. This is work in progress awaiting emerging datasets for ReQoL-10.

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