

Institution: University of Sheffield		
Unit of Assessment: A-04 Psychology, Psychiatry and Neuroscience		
Title of case study: Promoting the effectiveness of psychological therapies: The impact of a portfolio of brief patient reported outcome measures on practice and policy		
Period when the underpinning research was undertaken: October 2007–present		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Professor Michael Barkham	Role(s) (e.g. job title): Professor of Clinical Psychology	Period(s) employed by submitting HEI: September 2007–present
Period when the claimed impact occurred: 2015–2020		
Is this case study continued from a case study submitted in 2014? Y		
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Sheffield research has developed a portfolio of high-quality, population-specific patient-reported outcome measures, comprising shorter versions of the Clinical Outcomes in Routine Evaluation (CORE) and the Recovering Quality of Life (ReQoL), to assess the effectiveness of psychological therapies. This has enabled session-by-session monitoring of progress across treatment. Both CORE (translated into 25 languages) and ReQoL (translated into 18 languages) have been adopted nationally and internationally for use in clinical services, with 200+ NHS (and other) services having secured ReQoL licenses. CORE has also been incorporated into commercial software for assessing and tracking people's psychological distress/health. The measures have informed policy recommendations.</p>		
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>When assessment and outcome measures are used in routine mental health services, patients do better in therapy, clinicians are more informed about progress, and health services can better identify how best to use their valuable resources. These multiple benefits depend on the development, implementation, and utilisation of short, reliable, and sensitive patient-reported outcome measures (PROMs). The aim of the underpinning research programme was to respond to this need by developing and validating a portfolio of short population-specific clinical outcome measures. These now underpin the delivery of evidence-based psychological interventions in the field of mental health.</p> <p>Barkham and colleagues have developed a range of short, population-specific PROMs for generic use with adults and young people. A 10-item measure of the Clinical Outcomes in Routine Evaluation (CORE-10) was developed for adults and showed good psychometric properties [R1]. Via NIHR Research for Patient Benefit funding, CORE-10's utility was shown in an NHS mental health patient feedback system [R2]. It was also tested in student mental health settings (funded by the Alcohol Education Research Council). To ensure best reach to younger people, a 10-item version was developed for adolescents aged 11-16 years (YP-CORE) [R3]. Research established definitive properties of the YP-CORE, using a clinical sample (N = 1269) of 11- to 16-year-olds drawn from seven services and a nonclinical sample (N = 380), yielding</p>		

reliable change indices and clinically significant cut-off points that deliver clinical norms to enable benchmarking of outcomes by clinical services [R4].

In recognition of a growing focus on the concept of quality of life and the importance of considering the views of service users, attention turned to building on qualitative and conceptual reviews of quality of life to devise a short outcome measure that would be suitable for NHS adoption. Accordingly, Barkham collaborated with Brazier and Keetharuth (School of Health and Related Research, University of Sheffield) to develop a further short quality of life PROM in which items were largely derived from the perspectives of service users and experts by experience. This approach complemented that used in the development of the CORE measures, which had been determined by the perspective of practitioners. The resulting measure was named **Recovering Quality of Life (ReQoL)** and yielded two versions: **ReQoL-10** and **ReQoL-20**. The project involved in excess of 6,500 service users and 30 NHS Trusts and was supported by Department of Health funding. The ReQoL-10 is recommended for general use, while the ReQoL-20 provides a fuller assessment of outcomes and may be better suited for research studies [R5]. Further work on the measure has focused on the experiences of service users, employing a sample of adult and adolescent (aged 16-18) service users in face-to-face structured individual interviews and focus groups. Additional psychometric studies using large samples (N = 2262 and 4266 participants) have been carried out supporting the factor structure of the items sets used to construct the ReQoL-10 and ReQoL-20, which were found to be sufficiently unidimensional as confirmed by the good fit of the bi-factor models [R6].

3. References to the research (indicative maximum of six references)

- R1.** Barkham, M., Bewick, B., Mullin, T., Gilbody, S., Connell, J., Cahill, J., Mellor-Clark, J., Richards, D., Unsworth, G., & Evans, C. (2013). The CORE-10: A short measure of psychological distress for routine use in the psychological therapies. *Counselling and Psychotherapy Research*, 13(1), 3–13. <https://doi.org/10.1080/14733145.2012.729069>
- R2.** Luccock, M., Halstead, J., Leach, C., **Barkham, M.**, Tucker, S., Randal, C., Middleton, J., Khan, W., Catlow, H., Waters, E., & Saxon, D. (2015). A mixed-method investigation of patient monitoring and enhanced feedback in routine practice: Barriers and facilitators. *Psychotherapy Research*, 25(6), 633–646. <https://doi.org/10.1080/10503307.2015.1051163>
- R3.** Twigg, E., **Barkham, M.**, Bewick, B. M., Mulhern, B., Connell, J., & Cooper, M. (2009). The Young Person's CORE: Development of a brief outcome measure for young people. *Counselling and Psychotherapy Research*, 9(3), 160–168. <https://doi.org/10.1080/14733140902979722>
- R4.** Twigg, E., Cooper, M., Evans, C., Freire, E., Mellor-Clark, J., McInnes, B., & **Barkham, M.** (2016). Acceptability, reliability, referential distributions and sensitivity to change in the Young Person's Clinical Outcomes in Routine Evaluation (YP-CORE) outcome measure: replication and refinement. *Child and Adolescent Mental Health*, 21(2), 115–123. <https://doi.org/10.1111/camh.12128>
- R5.** Keetharuth, A. D., Brazier, J., Connell, J., Bjorner, J. B., Carlton, J., Taylor Buck, E., Ricketts, T., McKendrick, K., Browne, J., Croudace, T., & **Barkham, M.** on behalf of the ReQoL Scientific Group (2018). Recovering Quality of Life (ReQoL): a new generic self-reported outcome measure for use with people experiencing mental health difficulties. *The British Journal of Psychiatry*, 212(1), 42–49. <https://doi.org/10.1192/bjp.2017.10>

- R6.** Keetharuth, A. D., Bjorner, J. B., **Barkham, M.**, Browne, J., Croudace, T., & Brazier, J. (2019). Exploring the item sets of the Recovering Quality of Life (ReQoL) measures using factor analysis. *Quality of Life Research*, 28(4), 1005–1015.
<https://doi.org/10.1007/s11136-018-2091-1>

4. Details of the impact (indicative maximum 750 words)

Sheffield research has resulted in a portfolio of high-quality population-specific patient-reported outcome measures to assess the effectiveness of psychological therapies. The CORE measures were placed under Creative Commons License in 2015 (Trustees: Barkham and Evans - <https://coresystemtrust.org.uk>), and Service Improvement Learning Collaborative UK was established to support enhanced data collection and use of the measures. The term ReQoL was trademarked in 2017 and official implementation websites were established (<https://www.regol.org.uk/p/overview.html>, <https://scharr.dept.shef.ac.uk/regol-implementation/>). Oxford University Innovations operates licensing for the ReQoL measures.

This infrastructure has supported the adoption of CORE and ReQoL measures, both nationally and internationally, in clinical services. CORE has also been incorporated into commercial software for tracking psychological distress and both measures have been included in policy recommendations.

Adoption of measures in national adult clinical services

CORE-10 has been widely adopted by services (e.g. addiction support services, PTSD in combat veterans), enabling them to report their effectiveness [S1]. It has also been adopted by the Association for Counselling and Therapy Online (ACTO) for use via the CORE Net platform [S1].

Since 2016, 202 non-commercial ReQoL licenses have been awarded, primarily to NHS Trusts and Health Partnerships [S2]. Examples include: Leeds and York Partnership NHS Foundation Trust to evidence the effectiveness of clinical work [S3] and Black Country Partnership NHS Trust in their Refocus on Recovery strategy [S3]. ReQoL is available in SystmOne - the most popular software used in UK primary care. ReQoL data can be flowed to the Mental Health Services Data to support national understanding of mental health outcomes. The ReQoL measures are included in the NHS Commissioning for Quality and Innovation (CQUIN) [S4].

Adoption of measures in services for young people

CORE-10 and YP-CORE are included in the Child Outcomes Research Consortium's (CORC) approved outcome measures list for children and young people. CORC is the largest UK body coordinating routine change measurement to improve care for children and adolescents. Both measures are in the British Association for Counselling and Psychotherapy's recommended toolkit. Examples of services which started implementing the YP-CORE from 2016 include Place2Be in the UK (counselling 5,618 pupils in 2017/18) and Jigsaw youth mental health service in Ireland (seeing approximately 6,623 young people with mental health difficulties in 2019 an increase of 24% since 2017) [S5].

Adoption of measures in school counselling in Wales (YP-CORE)

YP-CORE is used to assess the impact of counselling services by local authorities in Wales for children and young people in secondary schools and in Year 6 of primary school. Since 2016,

the Welsh government has published annual reports on these services. The 2018/2019 report recorded YP-CORE data on 11,753 pupils across 21 local authorities [S6]. These reports inform Welsh government ministers on the provision of school counselling (e.g., differences in local provision) and feed into policy decision-making.

National adoption in higher education (CORE-OM/CORE-10/GP-CORE)

The university sector is a strong proponent of CORE measures, using them to evaluate their counselling services. A 2016 review of UK student counselling services found 61 (39%) to be using CORE measures [S7], indicating approximately 50,000 students per annum completing CORE measures at institutions. Guidance from CORC on implementing student wellbeing surveys promotes the GP-CORE (General Population) as a major candidate measure.

International adoption of portfolio measures

CORE measures are available in 25 languages and are used widely in, and increasingly beyond, Europe. In Italy, CORE-OM is the de facto change measure in Tuscany, South Tyrol/Trentino and Emilio-Romagna. It is the recommended measure of SIPSOT (organisation of Italian public sector psychologists). In Spain, CORE-10 and YP-CORE are default change measures in the ITA service. In Finland, CORE-10 and YP-CORE are widely used (e.g., National Institute for Health and Welfare), and CORE-OM is used routinely in Northern Norway. CORE-OM, YP-CORE and CORE-10 are used in other countries including China, Portugal, Denmark, Sweden, Greece, Ecuador, and Colombia.

ReQoL measures are available in 18 languages. The US Department of Veteran's Affairs has been granted a US-wide national license.

Commercial adoption

CORE-10 has been adopted into commercial software to provide ongoing routine measurement for psychological distress (e.g., Pragmatic Tracker in the UK; NovoPsych in Australia) [S8].

Policy recommendations

CORE-10 is recommended by the Royal College of College of Psychiatrists in their perinatal screening guidelines, where ReQoL-10 is also listed [S9]. CORE-OM is recommended as a method of assessing the psychological impact of tinnitus in NG155 [S9]. ReQoL is part of the International Consortium for Health Outcome Measures standard set for psychotic disorders (www.ichom.org/portfolio/psychotic-disorders/) and is included in NHS Digital's Mental Health Standard Data Set Guidance together with the CORE-10, YP-CORE, and CORE-OM [S10].

5. Sources to corroborate the impact (indicative maximum of 10 references)

- S1.** Combined evidence of adoption of CORE-10 in adult services: A service evaluation of PTSD Resolution: Client Outcome Data. H. Burdett & N. Greenberg, King's College London <https://tinyurl.com/y2mpk8m6> pp.2,4-6,14-27,29,32-33,35-38 and An Evaluation of Using CORE-Net with Online Therapy (2019). Written by Dr Rachael Klug, Lead ACTO-CORE Pilot. <https://tinyurl.com/t7rr9pz> pp. 1-29.

- S2.** Data listing of ReQoL licenses compiled by Oxford University Innovations Ltd: dated 1-Nov-2020.
- S3.** Combined source: Leeds and York Partnership NHS Foundation Trust, Research and Development Annual Report 2017/18, pp.7-10; Black County Partnership use of ReQoL as part of improvement priorities (<https://bit.ly/2Nw0PDu>).
- S4.** NHS England and NHS Improvement (2016). *Delivering the Five Year Forward View for Mental Health: Developing quality and outcomes measures* (<https://www.england.nhs.uk/mentalhealth/wp-content/uploads/sites/29/2016/02/mh-quality-outcome.pdf>).
- S5.** Jigsaw annual report 2019 and independent evaluation of JIGSAW service model 2018. Community Consultants, County Waterford. pp.20-21,27,31-35,48,52,54, 68, 71-73,87.
- S6.** Statistical First Release (March 2020). *Counselling for children and young people 2018/19*. Statistics for Wales, Welsh Government. <https://tinyurl.com/y34oqgnv> (pp.1,3-4,14-15,19).
- S7.** Broglia, E., Millings, A., & Barkham, M. (2017). Challenges to addressing student mental health in embedded counselling services: a survey of UK higher and further education institutions. *British Journal of Guidance & Counselling*, 46(4), 441–455. <https://doi.org/10.1080/03069885.2017.1370695>
- S8.** NovoPsych Australian website (<https://novopsych.com.au/assessments/clinical-outcomes-in-routine-evaluation-10-core-10/>).
- S9.** Combine clinical policy recommendations: Royal College of Psychiatrists (2018). *FROM perinatal: Framework for Routine Outcome Measures in perinatal psychiatry*. College Report CR216. <https://tinyurl.com/y673l9de> (pp.6-12,14-15,17-19,22-23,26-33). NICE (2020) *Tinnitus: assessment and management NICE guideline* www.nice.org.uk/guidance/ng155 (p.41).
- S10.** Health and Social Care Information Centre (NHS Digital) (2020). *Mental Health Services Data Set (MHSDS) v4.1 User Guidance*. <https://tinyurl.com/y6exdvae> (pp. 110,113,114).