Research Briefing

College of Occupational Therapists

Measuring Outcomes

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Introduction

All occupational therapists should be measuring and recording outcomes. This briefing covers background information and broad principles for good practice regarding measuring the outcomes following occupational therapy intervention. It also provides signposting to relevant resources and information available.

1. What are occupational therapy outcomes?
2. The purpose of outcome measurement.
3. Identifying realistic aims of intervention.
4. Standardised outcome measures.
5. The selection and use of outcome measures.
6. Commonly used outcome measures.

1. What are occupational therapy outcomes?

Outcomes are the end result of intervention or action, or lack of it, on an individual or on a population group. They are the changes that occur that may be attributed, to some degree, to the intervention (or lack of it).

An outcome measure is a tool to measure or quantify this change. An initial assessment provides the baseline against which a later measurement can be compared when considering the outcome for the service user. Many tools are rated by the care professional, but increasingly service users are the raters, e.g. Patient Rated Outcome Measures – PROMs (Health and Social Care Information Centre 2015).

Outcome measures may be standardised, meaning that they have a consistent application procedure and scoring system.

Examples of outcomes that can be measured include:

- Improvements in health or quality of life.
- Improvements in function or level of independence.
- Attainment of intervention goals.
- Service user satisfaction.
- System changes such as reduced hospital length of stay, waiting lists, and readmission rates.

Whilst implementing a care plan occupational therapists focus on achievement of the individual goals for the individual person, rather than the overall expected outcomes. Some goals may concern the service user's ability to complete tasks and activities, rather than looking at overall performance and participation.

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As the care plan nears completion, the focus often shifts from the achievement of individual goals to the overall outcomes concerning that person's occupational performance and participation. For convenience, outcomes are often measured at the point when interventions have just been completed. However, the point at which outcomes for the service user are best measured may be months after last contact with the occupational therapist. This delay allows time for the service user to optimise the benefits they achieve from occupational therapy interventions.

The occupational therapist will also be concerned with measuring outcomes for secondary purposes such as service management, service commissioning, information for central government (Central returns), clinical audit and research.

2. The purpose of outcome measurement

Outcome measurement can demonstrate the effectiveness of intervention for individual service users or population groups, guiding further decision-making and/or intervention. The use of outcome measures, especially standardised measures, allows occupational therapists to build up and use a body of evidence for occupational therapy.

Standardised tools tend to be better recognised by those in other professions. They can help improve the sharing and understanding of information in multidisciplinary teams and between teams when more than one service is involved. The routine use of standardised tools also underpins the credibility of information and reports provided to local managers and service commissioners.

A recent trend is the development of national data sets that include outcome data, for example the recording and central aggregation of outcomes as part of the Access to Psychological Therapies (IAPT) programme.

3. Identifying realistic aims of intervention

Health and social care services are provided to people with diverse conditions and individual circumstances. Consequently there is a variety of overall aims relevant to different individuals. For example:

- **Rehabilitation** - to restore personal autonomy in those aspects of daily living considered most relevant by patients or service users and their family carers (Sinclair and Dickinson 1998).
- **Habilitation** - to achieve new levels of performance and participation, e.g. people with learning disabilities.
- **Reablement** - to help people accommodate their illness or condition by learning or relearning the skills necessary for daily living.
- **Adaptation** – to adjust to a lower level of performance and participation, e.g. some people with neurological conditions.
- **Prevention** – to minimise the risk of deterioration or harm, e.g. joint protection for people with arthritis.
- **Stabilisation** – trying to maintain functioning or slow down expected deterioration, e.g. Chronic Obstructive Pulmonary Disease.
- **Palliative** – to improve the quality of life of patients and families who face life-threatening illness, by providing pain and symptom relief, spiritual and psychosocial support from diagnosis to the end of life and bereavement (WHO 2012).

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The above aims are not mutually exclusive. 'Reablement' and 'Rehabilitation' overlap, and may be used with different care groups. For example, reablement usually provides intensive input in the short-term whereas rehabilitation is usually longer term.

There are other frameworks for categorising the overall aims of care and intervention, which are broadly similar to the framework set out above. Wilcock's 'Occupation for Health' (2001), for example, identifies aims of adaptation following disability and handicap, rehabilitation, habilitation, restoration of health, prevention of Illness, and promotion of health.

The aim provides the overall context for evaluating the effectiveness of interventions. Someone with a deteriorating condition, such as Alzheimer's disease, may expect some improvement in functioning and quality of life when first receiving health and care services. Once their situation and care package has been optimised then a more realistic aim will be to stabilise their level of functioning, or perhaps even to minimise the rate of deterioration as the illness progresses.

Individual goals should contribute to the overall aim, and wherever possible be: Specific, Measurable, Agreed, Realistic and Timed (SMART). Interventions are often chosen to collectively contribute to the achievement of the current set of goals. In some instances there may be a single intervention for each specific goal.

4. Standardised outcome measures

A 'standardised' outcome measure (as for standardised assessment tools) has a set, unchanging procedure that must be used when carried out, as well as a consistent system for scoring. This ensures minimal variation in the way it is carried out at different times and by different testers. The scoring system may also have been normatively standardised, meaning that the test has been used with a very large group of similar people, giving an average score or range of expected scores that the tester and the service user can use to compare with their own results. Standardised tests have known levels of reliability, validity, and utility, which ensure that therapists can select and use them appropriately and with confidence in the results.

5. The selection and use of outcome measures

Practitioners need to select an outcome measure that is appropriate for the specific identified measurement purpose. There isn't and probably never will be a 'one size fits all' outcome measure for all fields of practice. This reflects the breadth of occupational therapy intervention and the diversity of service users' circumstances and needs. Several outcome measures may be needed to provide comprehensive relevant information about the outcomes for each individual service user.

Before selecting outcome measures practitioners need to consider the following:

- Existing data collection requirements for service commissioning, information required by central government and national agencies, and for local clinical audits.
- National guidance on assessment and outcome measurement in each area of practice, e.g. people with Dementia, Diabetes, Falls, and Chronic Obstructive Pulmonary Disease.
- What do they want to measure – is there a tool that will do this precisely?
- Is the tool suitable for the service user's condition, needs, setting, culture and background?
- Is the tool reliable and valid?
- Is the outcome measure sensitive enough to change in the individual?

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- What training is required to use the outcome measure?
- Does the outcome measure require the use of particular equipment or a specific environment?
- Is the outcome measure easy to use in practice?
- Will the introduction of the outcome measure into the service be practicable?
- Are the results meaningful and useful/usable?

There are articles, books and other resources that provide key details or reviews of the main assessment tools and outcome measures used in health and social care services. These can assist practitioners to choose appropriate tools for their service.

When it is difficult to find an outcome measure that meets precise local requirements it is tempting to adapt a published tool or to develop a 'home grown' one based on local experience. This can be very appealing and can appear to provide a quick solution. It may be relatively easy to implement, and have an acceptable degree of face validity, i.e. the outcome measure appears to measure what it says it measures.

However, the process of developing a standardised outcome measure usually takes several years, and requires a major research project with significant resources. So, a locally developed outcome measure is unlikely to have been standardised and cannot be relied on to be sufficiently valid or reliable. Practitioners should explicitly state when their results are derived from a locally developed tool to ensure those results can be interpreted correctly by the service user and other professionals.

The introduction of an outcome measure into routine clinical practice should be considered very carefully, be part of the organisation's business plans, and have the full support of senior management.

Outcome measures may require the practitioner to complete training before using the tool, and possibly regular refresher training. The training can be seen as a valid part of continuing professional and service development, if it is going to meet the requirements of the service or the needs of the service-user.

Some published tools have pre-printed forms to use. Practitioners need to ensure that they use these according to any copyright and licensing conditions given.

The results of an outcome measure must be recorded appropriately and comprehensively, and then stored as part of the service-user's care records. Please refer to College of Occupational Therapists *Professional standards for occupational therapy practice* (COT 2011), and the College's Guidance: *Record Keeping* (COT 2010), with regards to assessment, evaluation and record keeping.

With the increasing use of digital care records, and the inclusion of standardised tools as part of the records, the outcomes of intervention may become easier to collect and analyse. There are country-specific development programmes to design and implement digital care records in England, Northern Ireland, Scotland and Wales.

Ideally, each assessment or outcome measure tool will have a corresponding digital template designed into every digital care record system. Each template will have been designed to accurately mirror existing data collection methods, such as paper forms. Correctly designed templates will ensure that assessment data can be accurately recorded in the individual digital care record whilst retaining the full meaning of that assessment data. The assessment information can then be viewed, analysed and used for individual clinical care, and for management reporting, clinical audit and research purposes.

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6. Commonly used outcomes measures

The following are examples of some assessments and outcome measures commonly used by occupational therapists.

6.1 Assessment of Motor and Process Skills (AMPS)

AMPS is a standardised, observational assessment that offers occupational therapists a unique approach to the problem of how to conceptualise and assess occupational performance. When the practitioner uses the AMPS, he or she is able to simultaneously evaluate a person's overall ability to perform domestic or instrumental activities of daily living and the quality of a person's motor and process skills. Occupational therapists are required to complete a course in order to administer AMPS. More information is available from: http://www.innovativeotsolutions.com/content/amps.

6.2 Australian Therapy Outcome Measures (AusTOMs)

The Australian Therapy Outcome Measures are designed for occupational therapists (and other health professionals) to use with service users, of all ages and all diagnoses, to measure the outcome of interventions in terms of functioning, participation and well-being. More information is available from: http://austoms.com/about.

6.3 Canadian Occupational Performance Measure (COPM)

COPM is an individualised, person-centred measure for use by occupational therapists to detect change in a service user's self-perception of occupational performance over time. It is designed as an outcome measure for use with service users with a variety of disabilities and across all developmental stages. The COPM is standardised in that there are specific instructions and methods for administering and scoring the test. More information is available from: http://www.thecopm.ca.

6.4 EQ-5D

The EQ-5D is a widely adopted standardised outcome measure, developed by the Euroqol group. The EQ-5D covers five dimensions (5D) namely: mobility, self-care, usual activities, pain/discomfort, and anxiety/depression. The EQ-5D includes both functioning in daily living activities and symptoms, which has contributed to its usefulness as a general measure of outcome.

There are several versions of EQ-5D, and different scoring systems. For example, the EQ-5D-3L has three levels of severity: ‘No problems; some or moderate problems; and extreme problems’. Whereas the EQ-5D-5L has five levels of severity: ‘No problems; slight problems; moderate problems; severe problems; and extreme problems’. Further information is available on the Euroqol website, at: http://www.euroqol.org.

6.5 Health of the Nation Outcome Scales (HoNOS)

HoNOS, developed by the Royal College of Psychiatrists, comprises 12 simple scales to measure the health and social functioning of people with severe mental illness. They are designed for repeated use, as clinical outcome measures and training is required for those who wish to administer the outcome scales. There is a range of scales for different groups of people: for working age adults; for older adults, for children and adolescents; for health and social care settings in secure psychiatric, prison health care and related forensic services, including those based in the community; for learning disabilities; and for acquired brain injury. More information is available from the Royal College of Psychiatrists web site: http://www.rcpsych.ac.uk/quality/honos/whatishonos.aspx.

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6.6 MOHO (Model of Human Occupation) Assessments

More than 20 assessments have been developed based upon the MOHO model. MOHO seeks to explain how occupation is motivated, patterned, and performed. The model aims to understand occupation and problems of occupation that occur in terms of its primary concepts of volition, habituation, performance capacity and environmental context. More information is available from: http://www.cade.uic.edu/moho.

6.7 QALYs

Quality-adjusted life years (QALYS) are a standard and internationally recognised method to compare different treatments or interventions and measure their clinical effectiveness.

'A measure of the state of health of a person or group in which the benefits, in terms of length of life, are adjusted to reflect the quality of life. One QALY is equal to 1 year of life in perfect health. QALYs are calculated by estimating the years of life remaining for a patient following a particular treatment or intervention and weighting each year with a quality of life score (on a zero to 1 scale). It is often measured in terms of the person's ability to perform the activities of daily life, freedom from pain and mental disturbance.' (https://www.nice.org.uk/glossary?letter=q)

References

College of Occupational Therapists (2011) *Professional standards for occupational therapy practice*. London: COT. Available at: *http://www.baot.co.uk/professionalstandards*

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Health and Social Care Information Centre (2015) *Patient Reported Outcome Measures.* Leeds: HSCIC. Available at: *http://www.hscic.gov.uk/proms*

Sinclair A, Dickinson E (1998) *Effective practice in rehabilitation: the evidence of systematic reviews*. London: Kings Fund.

Wilcock A (2001) *Occupation for health volume 1: a journey from prescription to self-health*. London: British Association and College of Occupational Therapists.

World Health Organisation (2012) *Palliative care.* Geneva: WHO. Available at: *http://www.who.int/cancer/palliative/en*

COT Resources

Assessments and outcome measures: resources to help you choose assessments and outcome measures. https://www.cot.co.uk/cot-library/assessments-and-outcome-measures

OT Subset: Assessments: https://www.cot.co.uk/ehealth-information-management/ot-subset-assessment-tools
OT Subset: Outcomes: https://www.cot.co.uk/ehealth-information-management/ot-subset-outcomes

Supporting practice evidence and resources (SPEaR) topic: Outcomes: https://www.cot.co.uk/supporting-practice-%E2%80%93-evidence-and-resources/outcomes

The College of Occupational Therapists Library has a growing collection of assessments/outcome measures and a number of textbooks on assessments/outcome measures, which are available for reference only. For information on specific assessments please contact the COT library (*library@cot.co.uk*) or browse the library catalogue, which is available via the COT web site at: https://www.cot.co.uk/cot-library/cot-library.

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