

## **10.2 The use of the ICF framework in an allied health outcome measure: Australian Therapy Outcome Measures (AusTOMs)**

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### **Introduction**

This section provides a brief overview of the way in which the framework and key concepts of the ICF were used in developing an Australian tool to measure therapy outcomes—the Australian Therapy Outcomes Measures (AusTOMs). This tool is based on the Therapy Outcomes Measures (TOM) developed in the United Kingdom by Professor Pam Enderby and colleagues. As well as drawing on the concepts of the ICF, AusTOMs incorporates descriptors developed by Australian clinicians using focus groups and a modified Delphi survey.

### **AusTOMs—using the ICF in an Outcome Measure**

The AusTOMs project is a Commonwealth-funded initiative that aims to develop a valid and reliable measure of therapy outcomes for use in the allied health disciplines of speech pathology, occupational therapy and physiotherapy. The project team is based at La Trobe University, Bundoora, Victoria and is working with allied health clinicians both within Victoria and across Australia on the development of the measure.

While there has been a clear focus in outcomes literature on evaluating medical interventions, there is also a growing body of literature on the outcomes of allied health professions (Benjamin 1995). There is a focus on measuring outcomes not just by assessing an impairment, but by assessing areas that may be more important to clients i.e. functional and societal limitations (Barr 1995). It is recognised, however, that there is not a clear linear relationship between a person's impairment, their limitations in everyday activities, and their level of disability or social limitation (Enderby 1997).

The AusTOMs tool uses the ICF as a basis for the headings and concepts of three out of four domains; thus, clinicians measure changes in clients' Impairments, Activity Limitations and Participation Restrictions, as well as a fourth domain, Wellbeing/Distress.

Each domain is rated on an ordinal scale with six defined points, where 0 = most severe, and 5 = no difficulty. To improve the sensitivity of the scales, clinicians are able to make half-point ratings (e.g. 1.5) to show that a client is performing somewhere between the defined points (e.g. between 1 and 2). Thus the domains effectively represent eleven-point ordinal scales. Each domain is independent of the others, so that a client may show no progress in one domain, while demonstrating great progress in another.

### **Why use ICF**

The AusTOMs project is based on more than ten years of research into outcome measures in allied health, carried out by Professor Pam Enderby, now Dean of Medicine at Sheffield University, UK. Enderby and others developed and rigorously tested TOM, a system of measuring therapy outcomes in the National Health Service (Enderby 1997; Enderby et al. 1998). This system was based on the ICIDH, the predecessor of the ICF.

When in Bristol, Enderby studied the notes of 350 speech pathology cases and discovered that speech pathology goals could be related to the three areas described in the ICIDH—impairment, disability and handicap (Enderby 1992); that is, the domains of the ICIDH were particularly applicable to speech pathology clinicians because these were the areas where they set goals. For example, a speech pathology clinician might aim to increase the client's range and rate of oral movement (impairment goal), increase the client's ability to communicate using speech (disability goal) and increase the client's use of communication to participate in classroom activities (handicap goal).

Enderby felt that there was a fourth category of goals in therapy, not explicitly covered by the WHO ICIDH classification. These goals related to the client's wellbeing. These are feelings of distress or anxiety, which clinicians may hope to alleviate during therapy (Enderby 1992).

The AusTOMs team, in consultation with clinicians, felt that the ICIDH framework was also relevant to speech pathologists, occupational therapists and physiotherapists in the Australian clinical context. The framework offers a way of describing 'health', and is relevant to all three allied health disciplines. It is because the framework is applicable across all disciplines that the team was able to create a tool that may be used to compare outcomes across disciplines. AusTOMs also provides clinicians with a common language when comparing outcomes. Rehabilitation services often involve many professions working with the same client. Without a common language for describing outcomes, clinicians are hampered when sharing information about client progress; many, even within the same profession, commonly use dissimilar language to relate goals and outcomes (Enderby 1997).

## Developing the AusTOMs scales

### Stage 1: Examining the measure in the Australian context

The project team at La Trobe University examined the UK Therapy Outcome Measure (TOM) scales. The terminology on these scales was updated to reflect the ICF vocabulary, using 'impairment', 'activity limitation' and 'participation restriction'. A core scale was developed for AusTOMs, from which to develop profession-specific scales.

New scale headings, more appropriate to Australian clinical practice were proposed. In speech pathology and physiotherapy, these scale headings represent an impairment, e.g. impairment of 'voice' or 'fluency' for speech pathology, or impairment of 'musculoskeletal movement related functions' for physiotherapy. In addition, physiotherapists decided to use the ICF terminology for body functions and structures as their card headings. Occupational therapists, on the other hand, developed their scale headings to reflect the 'activity limitation' domain; it was felt that this domain best reflected the focus of occupational therapy intervention. Occupational therapy scale headings were based on the ICF headings for activities and participation, e.g. 'learning and applying knowledge'.

### Stage 2: Developing scale descriptors

Once the scale headings were decided, descriptors were developed for each point in the ordinal scales. The research team held focus groups of clinicians across Victoria in each profession for this part of the project. Clinicians were asked to provide detailed terminology to describe impairments and activity limitations under each disorder heading. For example, speech pathologists were asked to provide a written description of what zero (0) (the most severe difficulty) might include for a client with a 'voice impairment'.

Speech pathology and physiotherapy groups focused on developing specific descriptors for 'impairment' and 'activity limitation' domains. Occupational therapy groups, on the other hand, concentrated mainly on the 'activity limitation' domain.

The project team then sought input from clinicians across Australia in determining the face validity of the scales. The scales were sent out in a modified-Delphi (two round) survey to speech pathology, occupational therapy and physiotherapy clinicians across Australia. This was done using the National Allied Health Casemix Committee membership. More than 600 returns across the three professions were received. The scales were modified on the written advice of responding clinicians, and a second round of surveys was sent out for confirmation of the changes.

The research team also sought the views of consumers (clients) during development of the scales. Consumer groups were contacted, and representatives attended a focus group at La Trobe University. Consumer feedback and advice on terminology were particularly useful for the development of the Participation and Wellbeing domains of the scales.

### **Stage 3: Training clinicians**

Fourteen health-care sites in Victoria were recruited for the project data collection. Speech pathologists, occupational therapists and physiotherapists across these sites, all of whom had agreed to participate in the project, were required to attend standardised training sessions in the use of the AusTOM scales. The inter- and intra-rater reliability of the scales were assessed.

### **Stage 4: Data collection**

Data collection on 500 clients per profession, across 14 sites in Victoria, was undertaken during the 6 month period from October 2002 to March 2003. During that time, clinicians were asked to rate clients at the beginning and at the end of a period of therapy, using AusTOMs. Clients were asked to rate their own health using the EuroQol (EQ-5D) measure of health status. This measure has been used widely across Europe and has an accepted Australian version. The score was then correlated with each domain of AusTOMs and the correlation with the EQ-5D was used to assess the concurrent validity of the AusTOM scales.

Data analysis took place at La Trobe University, Victoria. Allied health staff on each site submitted their data entry sheets (standardised forms) to the research team who entered the data onto a centralised database. In total, data from over 1000 interventions across all three professions were received. The data were used to examine the usefulness of AusTOMs as a valid and reliable tool for assessing outcomes in allied health intervention.

Data analysis shows preliminary evidence for the validity and reliability of the AusTOMs scales. Clinicians have been enthusiastic in their contribution to its development, and have generally reported that the tool is quick, easy to use, and clinically useful.