The Canadian Occupational Performance Measure: An Outcome Measure for Occupational Therapy

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The Canadian Occupational Performance Measure: An Outcome Measure for Occupational Therapy

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Key Words:
- Outcome and process assessment
- Measurement scales
- Client centred practice (occupational therapy)
- Tests by title (COPM)

ABSTRACT

The Canadian Association of Occupational Therapists, in collaboration with Health and Welfare Canada have developed and published a conceptual model for occupational therapy, the Occupational Performance model. This paper describes the development of an outcome measure, The Canadian Occupational Performance Measure (COPM), which is designed to be used with these guidelines for client-centred clinical practice. The COPM is an outcome measure designed for use by occupational therapists to assess client outcomes in the areas of self-care, productivity and leisure. Using a semi-structured interview, the COPM is a five step process which measures individual, client-identified problem areas in daily function. Two scores, for performance and satisfaction with performance are obtained. This paper describes the rationale and development of the COPM as well as information about its use for therapists.

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The Canadian Association of Occupational Therapists, in collaboration with Health and Welfare Canada, has developed a conceptual model and guidelines for the client-centred practice of occupational therapy (Department of National Health and Welfare & Canadian Association of Occupational Therapists, (DNHW & CAOT), 1983). This occupational performance model is based on the belief that the individual is a fundamental part of the therapeutic process, and describes an individual's occupational performance as a balance between performance in three areas: self-care, productivity and leisure (DNHW & CAOT, 1983). Factors which interact with these three areas to produce occupational performance include the individual's mental, physical, socio-cultural, and spiritual characteristics.

This model was accompanied by assessment and intervention guidelines for the client-centred practice of occupational therapy (DNHW & CAOT, 1983; 1986). Recognizing the importance of outcome measurement in occupational therapy, a third collaborative task force focused on measures available to occupational therapists in Canada (DNHW & CAOT, 1987). This task force used the occupational performance model as a basis to investigate current outcome measures of self-care, productivity and leisure (DNHW & CAOT, 1987). The task force reported that no measure was available to adequately evaluate occupational performance as described by The Guidelines for the Client-centred Practice of Occupational Therapy (DNHW & CAOT, 1987). Therefore, it was recommended that work go forward "to develop tool(s) specifically for occupational therapy and testing (of this tool) should assess the degree to which it captures the important contributions of occupational therapy" (DNHW & CAOT, 1987, p.39).

In September of 1988, the National Health Research and Development Programme of Health and Welfare Canada and the Canadian Occupational Therapy Foundation jointly funded a project to develop an outcome measure for occupational therapy. The specific objective of the funding was to develop a clinical measure of occupational performance. This paper will describe the results of that work, the Canadian Occupational Performance Measure (COPM). The rationale, development, and results of pilot testing will be discussed.

The Canadian Occupational Performance Measure is an outcome measure for use by occupational therapists to assess client outcome in the areas of self care, productivity and leisure. The COPM is based on the "Guidelines for the Client-Centred Practice of Occupational Therapy" (DNHW & CAOT, 1983) and is designed to assist occupational therapists in putting this model into practice.

The Guidelines for the Client-centred Practice of Occupational Therapy

The occupational performance conceptual model developed by the Department of National Health and Welfare and the Canadian Association of Occupational Therapists Task Force (1983), adapted from Reed and Sanderson (1980), is based on a number of concepts that influence the approach of occupational therapy to assessment. These include the following beliefs important to the practice of occupational therapy: that the individual client is an essential part of occupational therapy practice; that the client should be treated in a holistic manner; that activity analysis and adaptation may be used to effect change in the individual client's performance; that an important consideration in the therapy process is the client's developmental stage; and that role expectations must be taken into consideration in assessing a client's performance (DNHW & CAOT, 1983).

The unique contribution of occupational therapy is a result of its focus on occupational performance. The essence of the occupational performance model is that an individual should lead a balanced life, with constructive performance in the three areas of self care, productivity, and leisure (DNHW & CAOT, 1983). The individual's mental, physical, sociocultural and spiritual characteristics, as well as environmental factors, have a great influence on achievement of this balance. Occupational therapy based on this model involves the assessment of the abilities and disabilities of the individual client within his/her environmental and role expectations. Together the client and the therapist determine therapeutic goals, implement treatment and assess the outcome of treatment.

Development of the Canadian Occupational Performance Measure

The results of the investigations completed by the Canadian Association of Occupational Therapists and Health and Welfare's Task Force (DNHW & CAOT, 1987) and the COPM research team indicated that while there are many assessments available to measure self-care, and some to measure productivity and leisure, most assessments have limitations which preclude their use as a primary instrument in occupational therapy. The major limitation was that they did not consider the importance of role expectations and environmental factors (Pollock et al. 1990). As well, many instruments did not measure actual functional performance but rather focused on performance components. Accordingly, a new measure was developed.

Therapists involved in the development of this measure were from across Canada and represented all areas of occupational therapy including clinical practice, administration, education and research and all specialty areas of occupational therapy (paediatrics, adult physical dysfunction and mental health, gerontology). Information from the review of existing measures and from content experts was used to design the measurement approach. An individualized approach was favoured because it allowed the consideration of environmental and role factors during the assessment process. A semi-structured interview format of administration was judged the best method to determine in a short time period the client's occupational performance concerns.

Description of the Canadian Occupational Performance Measure

The Canadian Occupational Performance Measure (COPM) is a criterion measure developed in consultation with the Department of National Health and Welfare and the Canadian Association of

Occupational Therapists Task Force. The COPM reflects the philosophy of the model of occupational performance. It is client-centred and incorporates roles and role expectations within the client's own environment. It considers the importance of the skill or activity to the client using a semi-structured, individualized interview approach. The COPM encompasses the areas of self care, productivity and leisure as the primary outcomes being measured, but can also include in the process, an assessment of performance components in order to gain an understanding of why the client may be having difficulty. The COPM is designed to help occupational therapists clearly establish occupational performance goals based on client perceptions of need and to measure change objectively in defined problem areas.

The advantage of this individualized measure is that it is client-centred, generic (that is, not diagnosis specific), and crosses developmental stages. As well, an individualized measure can also be used in the case of a physically dependent client to evaluate her/his control over her/his environment.

The COPM measures the client identified problem areas in daily functioning. In those instances where a client is unable to identify problem areas (eg., a young child, an individual with dementia) a caregiver may respond to the measure. The COPM considers the importance, to the client, of the occupational performance areas as well as the client's satisfaction with present performance. The measure takes into account client roles and role expectations and, in focusing on the client's own environment, ensures the relevance of the problem to the client.

It can be used to measure client outcome with different objectives for treatment, whether it is development, maintenance or restoration of function, or prevention of change. During the assessment process, the measure may help engage the client from the beginning of the occupational therapy experience and increase client involvement in the therapeutic process. The COPM supports the notion that clients are responsible for their health and their own therapeutic process. It enables the therapist and client to identify and deal with life span issues and the client's involvement in purposeful tasks and activities.

Administration and Scoring of the COPM

The COPM is an instrument administered in a five step process using a semi-structured interview conducted by the therapist together with the client and/or caregiver. The five steps are:

Step 1: Problem definition.
Step 2: Problem weighting.
Step 3: Scoring.
Step 4: Re-assessment.
Step 5: Follow-up.

Step 1: Problem Definition

In this step, the occupational therapist interviews the client and/or caregivers to determine if they are having any problems in occupational performance. Some examples of how the occupational performance areas are categorized are listed in Table 1 and more examples are described in the COPM manual. For each performance area, the therapist gives several illustrations of the kinds of activities that fall within that category, and asks the client if he needs to, wants to, or is expected to perform these activities. If a "yes" answer is given to any of these three questions, the client is asked if he can perform, does perform and is satisfied with his performance of these activities. When the client identifies a need as well as an inability to perform an activity satisfactorily, then this performance area is identified as a problem. The therapist then explores with the client the specific activities within the performance area which is causing difficulties. If the client does not identify a need or expectation to perform, this area would not be addressed further.

Step 2: Problem Weighting

Once the specific problem areas have been identified, the client is asked to rate the importance to him of each of these activities on a 1-10 scale. The importance rating act as a weighting factor in the scoring of the client's performance and satisfaction for each activity.

Step 3: Scoring

Based on the importance rating from Step 2, the five most urgent problems are identified. The client is then asked to rate his ability to perform these specified activities and his satisfaction with that performance using the same 1-10 scale. The ratings of ability and satisfaction are then each multiplied by the importance rating to determine baseline scores. The possible range of scores is from 1 to 100 for

Table 1
CANADIAN OCCUPATIONAL PERFORMANCE MEASURE
Examples of Performance Areas

Self-Care	
	Personal care: dressing, bathing, feeding
	Functional mobility: stairs, bed, cars
	Community management: transportation, finances, services
Productivity	
	Paid/unpaid work: finding and/or keeping a job
	Household management: cleaning, laundry, cooking
	Play/school: play skills, school performance, homework
Leisure	
	Quiet recreation: hobbies, crafts, reading, cards
	Active recreation: sports, outings, travel
	Socialization: visiting, phone calls, parties, correspondence

Figure 1
CANADIAN OCCUPATIONAL PERFORMANCE MEASURE
Results of Case Example

Ask the client to choose the 5 most important problems and record them below. Using the scoring cards, have the client rate each problem on performance and satisfaction, then calculate the weighted scores.

PROBLEMS:	IMPORTANCE	PERFORMANCE	SATISFACTION	IMP x PERF	IMP x SAT
Machine Operation	9	1	1	9	9
Sitting Position	7	2	1	14	7
Heavy Cleaning	3	4	6	12	18

satisfaction and 1 to 100 for performance for each of the problems identified.

The weighted scores for performance and satisfaction are added separately to create two summative scores. These scores are divided by the number of rated activities to provide scores that can be used for comparisons across time. There are two scores - one for performance and one for satisfaction.

An example of Steps 1-3 for a client with productivity problems is outlined in Figure 1. This example reflects the identified activity concerns of a woman receiving rehabilitation after a recent back injury. She is independent in basic self-care activities, has good mobility, but is concerned about her ability to sit and operate the small industrial machine at which she has worked for ten years. She also wants to able to participate in all the household activities with her husband. Figure 1 shows the importance, performance and satisfaction ratings given before occupational therapy was initiated for these problem activities.

Following Step 3, the client and therapist must then decide on the goal of treatment. If the goal is to develop or restore function, one would expect an increase in performance and/or satisfaction scores. If the goal is maintenance or prevention, no change in performance score may be the desired outcome.

In order to understand the reasons for performance problems, set short term objectives, and to plan therapy, the therapist may need to assess performance components contributing to the client's difficulties in the identified problem areas. For example, it may be appropriate to assess physical endurance, range of motion or motivation in the example in Figure 1. Such assessments, while not the primary outcome of occupational therapy, assist the therapist in evaluating causes of dysfunction, and planning an appropriate intervention in order to achieve the goal identified by the client and therapist. It may be necessary to observe the client performing certain tasks, to use standardized tests to evaluate skill areas, to assess the client's environment, or any number of approaches that the therapist may use in understanding the client's problems in order to plan treatment.

Step 4: Re-assessment

Step 4 follows the intervention process. At an appropriate time following the initial assessment, the therapist again asks the client or caregiver to rate his performance and satisfaction with his performance in the activities identified as problems in Step 1. These ratings are multiplied by the *original* importance ratings, summed and divided to calculate the change seen in the client over time. This process enables the client and therapist to have a concrete image of changes which have occurred during the therapy process.

Step 5: Follow-up

The purpose of this step is to plan for treatment continuation, followup or discharge. With a new COPM form, the therapist asks the client or caregiver the six questions used in Step 1 to decide if there are occupational performance problems remaining, or if new difficulties have emerged over time. The client and therapist then decide on the best course of action in a similar manner as during the first use of the measure.

Results of Pilot Testing and Plans for Validation of the COPM

Initial pilot testing with 20 clients across all clinical practice areas has been completed in 6 communities across Ontario. Feedback from therapists in this initial pilot test indicated that the measure was easy to administer, taking from 20 - 40 minutes. The format and rating scales were clear and easy to employ. The majority of therapists in the pilot test felt that the COPM provided a useful framework for their initial assessment of all areas of occupational performance. Through this assessment process, the true priorities of the client became evident and these priorities were often different from the therapists' initial ideas. Client's insight into their abilities and difficulties in occupational performance frequently

increased through the assessment process.

The question of the appropriate timing for administration of the COPM was raised by most therapists. Changes have been made to the administration manual to reflect these concerns and stress the need for therapeutic judgment regarding the appropriate time for administration. A number of therapists commented that it may be useful to establish a relationship with the client initially before administering this measure.

There were some concerns expressed regarding the use of the COPM with caregivers. It may be very difficult for caregivers to judge the importance of activities for the client. In fact, some therapists reported that differences in opinion between clients and their family members was very enlightening to them.

The wording of questions during Step 1 of the process was felt to be awkward and changes to that wording have been made to reflect these concerns. A few therapists were concerned that the COPM does not use direct observation of performance or measure performance components. It is suggested in the manual that direct observation and the measurement of performance components may be very useful after Step 3 to help determine specific causes of the occupational performance problems and set goals of therapy.

After completion of this pilot test, revisions were made to the COPM. Further pilot testing will be completed across Canada during the winter of 1990, and will be followed by further validation studies.

The Task Force Report "Toward Outcome Measures in Occupational Therapy" (DNHW & CAOT, 1987) and the occupational therapy and psychometric literature (Kane & Kane, 1981; Kirshner & Guyatt, 1985; Law, 1987; Nunally, 1978) have outlined appropriate criteria for an evaluation measure : clinical utility, responsiveness, purpose, standardization, reliability and validity.

The first criterion is the clinical utility of the measure. Specifically, it should be easy to administer, take an acceptable amount of time for administration with each client, be in a format which is acceptable both to the client and the therapist, and provide useful clinical information for both the client and the therapist.

Second, the measure should be responsive to clinically important changes expected from occupational therapy intervention (DNHW & CAOT, 1987; Kirshner & Guyatt, 1985; Law, 1987). Therefore, items to be included in the instrument should only be those which are capable of measuring changes seen as a result of occupational therapy intervention.

Third, the intent of the measure was another important criterion in developing this instrument to quantify occupational performance. A measure to be used in occupational therapy should evaluate not simply functional ability or what a client can do, but actual functional performance or what a client does do (DNHW & CAOT, 1987). These capabilities should be measured in relation to the expectations of the client, his environment and his role.

The fourth criterion for this measure is standardization. Standardization for the COPM includes the development of a manual with psychometric information on the measure's reliability and validity as well as specific information regarding validation studies. Since the COPM is a criterion measure, norms will not be required. To date, a manual for the COPM has been completed but validation must still be completed generically across all ages, developmental stages and diagnoses.

The COPM will be used across different settings, times and by many therapists. Therefore, it must be demonstrated that the measure has adequate reliability. Therapists should have confidence that the measure is consistent across these various conditions.

The final criterion is validity. The COPM should have content validity and contain those components of each domain such as self-care or productivity which are important to the client, are appropriate for occupational therapy intervention and are sensitive to change in the individual client. The construct validity of the COPM will be determined by the correspondence between the measure and hypotheses generated from the model of occupational performance.

The development of the Canadian Occupational Performance Measure and its initial pilot testing are the beginning of the validation process for this measure. Further research examining the reliability and validity of this measure is required and plans are currently being made to seek further funding for this research. It is also hoped that both clinicians and researchers will use this measure and evaluate its utility.

Uses of The Canadian Occupational Performance Measure

The COPM does not replace the process of occupational therapy. It is an outcome measure that serves to structure and focus the assessment and intervention process. It is designed to be used with the Guidelines for The Client-centred Practice of Occupational Therapy (DNHW & CAOT, 1983, 1987) and should be of assistance to therapists in integrating these guidelines into their clinical practice.

While the primary purpose of the COPM is to evaluate individual client outcome after occupational therapy intervention, the measure also has potential to be used for programme evaluation and quality assurance in populations with similar problems in occupational performance. For example, the measure could be used to evaluate the effect of a programme teaching work simplification techniques for clients with arthritis. The COPM could also be used to compare the effects of similar programmes in different settings. One caution in the use of the COPM for group comparisons is necessary. Because the identified problems are individualized and the instrument uses clients' own importance ratings, the interpretation of changes seen after a programme will be difficult if there is little similarity in the problems identified by clients in the programme.

The COPM is appropriate for use by those practising occupational therapy, but not necessarily by all occupational therapists. Those working in very specialized areas, who assess primarily performance components and do not evaluate the client's occupational performance may not find the COPM useful.

The COPM relies on the client being

able to identify his own areas of difficulty. There will be clients who will be unable to do so because of age, intellectual functioning or lack of insight. In these cases caregivers will respond to the questions on behalf of the client. While caregivers will be familiar with theclient's environment, they are only able to act as a proxy. Therefore, their perceptions may not accurately reflect the client's concerns. Other clients may need time and intervention prior to administering the COPM to establish a therapeutic relationship and to help the client develop insight. Any change that may occur during this time will not be captured by the COPM.

In summary, this paper has described the development of a new outcome measure for occupational therapy. The Canadian Occupational Performance Measure is an individualized measure designed to be used with the Guidelines for a Client-centred Practice of Occupational Therapy (DNHW & CAOT, 1983) and to evaluate occupational performance in clients receiving occupational therapy intervention. The measure has been designed to reflect the goals of individual clients and takes into account their roles and the environment in which they live and function. The development, validation and use of this measure, in conjunction with The Guidelines for the Client-centred practice of Occupational Therapy, has the potential to provide a standard, comprehensive method of individualized assessment for occupational therapists across Canada.

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Résumé

L'Association canadienne des ergothérapeutes en collaboration avec Santé et Bien-être social Canada, a élaboré et publié un modèle conceptuel pour l'ergothérapie, le modèle axé sur la capacité fonctionnelle. Cette présentation fait état du développement d'un instrument de mesure des résultats, l'Evaluation canadienne de la capacité fonctionnelle (ECCF) destinée à être utilisée avec les lignes directrices régissant l'intervention en ergothérapie axée sur le client. L'ECCF est un instrument de mesure conçu pour l'usage des ergothérapeutes dans l'évaluation des résultats observés chez le client dans les domaines des soins personnels, du travail productif et des loisirs. Au moyen d'une entrevue structurée, l'ECCF comporte cinq étapes pour la mesure des déficiences propres à chaque client en ce qui a trait à son fonctionnement quotidien. Deux pointages sont obtenus, l'un concernant la capacité fonctionnelle, l'autre, le degré de satisfaction. Cette présentation décrit les raisons et les étapes qui ont conduit à l'élaboration de l'ECCF et renseigne sur son utilisation.