Occupational therapy activity as a treatment medium

In this article, Ylva Powlett explores the theory and practice of occupational therapy and highlights how and why it uses activity and the role it plays in the rehabilitative process in an acquired brain injury unit.

irrevocably alters the whole pattern of a person's life. However, as each individual is a unique human being with their own personal way of being and thinking, it is impossible to judge how someone with a brain injury has been affected without taking the whole person into account (Powell, 1998).

Occupational therapy

Occupational therapy is the therapeutic use of activities of daily living in self-care, work and leisure to increase independent function, enhance development and prevent disability. It may include adaptation of task or environment for each individual to achieve his/her maximum independence to enhance quality of life.

Thus the overall aim of occupational therapy is to enable and empower an individual to function to his/her maximum potential in all activities of daily living (ADL). This includes the activities of self-care, work and leisure. Self-care activities include basic physical functions such as eating, sleeping, keeping warm and survival functions such as washing and dressing. Leisure is used to satisfy individual needs that are not met by either self-care or work occupations. Work is any protective activity whether paid or unpaid that contributes to the maintenance of the individual (Creek, 1990).

Occupational therapy is essentially client-centred. Each client is seen as a unique individual whose humanness entitles him to choices in determining his own destiny (Yerka, cited in Creek, 1990). This belief in the right of the individual to be him/herself is made up of three separate beliefs:

- A concern with the whole person
- A belief in intrinsic motivation to be active, and
- An understanding of the social nature of people. Hence a holistic view is taken of people (Creek, 1990).

The occupational therapy process

There is a basic process in occupational therapy that falls into 3 stages:

- Assessment
- Treatment/intervention, and
- Evaluation.

Within this process, an occupational therapist will work within a model of practice. The purpose of a model is to translate theory into practice and provide a structured way of ensuring holistic and client-centred practice. One of the models within occupational therapy theory is that of Read and Sanderson's model of occupational performance.

Each activity of daily living is broken down into 5 performance components:

- Motor skills, e.g. movement
- Sensory skills, e.g. perceptual disorders such as inability to recognise objects on touch, neglect of the left side, sensory functions such as vision and hearing
- Cognitive skills, e.g. memory, attention, information processing, problem solving, planning and organising, sequencing
- Interpersonal skills, e.g. communication, relating to others, social skills, behaviour, and
- Intrapersonal skills, e.g. mood state, motivations, awareness, insight.

At each stage of the occupational therapy process the client is involved. During consideration of a client with an acquired brain injury who is receiving residential rehabilitation, a variety of assessments are carried out by

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the occupational therapist. This is to establish a baseline of a client’s functional abilities and disabilities. Occupational therapists use a variety of assessments. For example, informal interview, observing client’s performance in ADL, and the use of published standardised assessments such as the Cheddington Occupational Therapy Neurological Assessment Battery and the Rivermead Behavioural Memory Test. Furthermore, it is essential to gather a picture of the client’s life before his/her injury. This includes education, interests and work experience. Information comes from the family, friends and relatives, as well as the client.

Once assessed, a treatment/intervention programme is made in conjunction with the client. Long-term and short-term goals are set, e.g. a long-term goal may be to shop for and cook a meal and a short-term goal may be for the client to prepare their own breakfast with no assistance.

During interventions, the therapist will be using a selection of graded activity. Length of sessions will vary according to the client. A balance of treatment activities incorporating the individual’s interest and using his/her intact abilities is essential. After a period of intervention, evaluation of progress and therapy is done and new goals are set according to the individual needs of the client.

**Activities and occupational therapy**

Activities that are used in OT have to be meaningful and purposeful to the client, as well as being graded according to ability with achievable goals. Activities can be seen as functional activities, that is activities needed to function independently in life (washing, cleaning, cooking, eating, sleeping, working, etc) and as therapeutic activities. As long as the activity has meaning and purpose for the client in his/her treatment program it can be analysed and graded and used. This includes not just the activity itself but the environment (e.g. is it accessible, is it too noisy?). For example, it would be no good asking a woman who was a typist to do a woodwork-based activity if she had no interest in this. If she did, then a programme of activity could be graded and added to her treatment plan. However, it is more likely that she will be motivated to use a pre-injury skill such as typing to work on any problems she may have (i.e. left hemiparesis, memory and attention problems).

Activities can either be on a one to one basis or doing group work, depending on the client’s needs and abilities. For example, a group of clients that all have a problem managing anger after a brain injury could take part in a closed group to work on anger management.

Using the 5 performance components from Reed and Sanderson’s model of occupational performance, two activities will be analysed, including their potential for grading.

The following analysis may include points that seem obvious to the non-injured adult, but it is important to realise that at any one of the following stages, as a result of an acquired brain injury, dysfunction can occur. Although small, it may have a domino effect on the ability to complete a task. For example, if someone has poor cognitive skills in the areas of planning, organising or making decisions, then they may not even be able to start the task let alone finish it.

**Cooking a meal using the oven and hob**

Before this, sessions will have taken place in order to plan the meal. A list of ingredients that are needed is written and shopping and preparing the meal is then carried out. This is a functional activity. The meal is cooking bacon under the grill with fried egg and baked beans.

**Motor skills**

Varying degrees of mobility are required to get around the kitchen (walking or using a wheelchair) and to access the kitchen.

Gross motor skills, for example, the use of the lower body, such as hip and knee joints, are used during standing, bending and stretching, and a wide range of movement in the shoulder and elbow joints enable the handling of food, pans and the oven door.

Fine motor skills include a wide range of movement in the finger and wrist joints to turn on the hob, handle food, crack eggs and put cooked ingredients on a plate. A wide range of grips are used to hold the food, pans, a wooden spoon, the oven door or a tin of beans.

Hand eye coordination is needed to crack eggs into a pan, pour beans into a saucepan and put a tray of bacon under grill. Physical endurance and strength are needed to complete the task.

**Sensory skills**

The senses are utilised, for example, when discovering what an item feels like and recognising it by touch. Vision is used to see objects in the kitchen. The client must have spatial awareness of the kitchen to move around, and to aim and judge the depth when cracking eggs into a pan.

Perception skills are needed, for example, to judge figure and ground — the egg from the pan, bacon from the tray.

**Cognitive skills**

An ability to sustain attention until the task is achieved is required. Additionally, the ability to select attention and screen out distractions is needed. The client must also be able to alternate and divide attention between bacon cooking under the grill in the oven, and the egg and beans on two hobs.

Immediate, short-term and long-term memory is needed. For example, it is essential to be able to recall what has just been done (i.e. is the oven still on?) as well as to recall how to use equipment (long term). Other cognitive skills that are needed in cooking include the ability to logically sequence a task, awareness of personal safety and an ability to perceive cause and effect (such as recognising that bacon cooks when placed under heat). The need to be able to plan, organise and decide what and how to cook, such as what to cook

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KEY POINTS

■ Within acquired brain injury unit, all staff work as part of a multidisciplinary team.
■ Rehabilitation programmes are individually formed according to the unique abilities and disabilities of each client.
■ The aim of occupational therapy is to enable clients to maximise their potential for independent living.
■ It uses activity as a treatment medium, grading it according to the needs of each client.

first and how to coordinate these items to produce edible food is necessary. Moreover, one would need to be able to identify mistakes and self-correct him/herself if errors occur (monitoring and feedback). An ability to be able to recognise what the kitchen is for (orientation to the environment) as well as the ability to problem solve are other cognitive skills used in preparing a meal such as bacon, eggs and beans.

Intrapersonal skills
The client is involved and active, and has an awareness of self (needs, desires). The activity involves responsibility, and interaction with the environment to control it and therefore gratify one’s needs to have a cooked meal. A level of tolerance and patience are used while waiting for the food to cook.

An ability to express and control feelings during the pressure of getting everything cooked properly is required. It is a rewarding experience as the end product is very real and concrete. It is a motivated action (hunger). It can be rewarding to the self-image as one’s desires are met as well as to the body image if the task is managed with ease.

Potential for grading
This cooking activity can be made simpler or more complicated. It can involve another menu, more courses, more people in the kitchens, working as a team, noise can be added as a distractor, time pressure can be added. The sequence of what to do can be written and planned beforehand if a client has problems with attention or memory or sequencing events.

Cognitive skills
As in the previous activity, attention and memory are used continuously. It is essential to be able to screen out excess distractions such as other food items on the shelf in the whole shop, noise, lighting, people bumping into one another. One is continuously alternating and dividing attention, as well as concentration and selective attention. Immediate, short-term and long-term memory are used to recall past experiences of shopping, what has just been done and what needs to be done. The activity of selecting items before paying for them must be sequenced. Language skills are used to speak with and understand the cashier. Literary and numeracy skills, and the use of symbols for money handling, reading packets and signs are used. Goal setting of wanting food items and having to pay for them. Perceiving cause and effect of using money to obtain items. An ability to choose from a wide range of possibilities may be involved in this task. Awareness of other people and time spent in the shop is needed. A range of knowledge of what to do in a shop is needed. Executive skills such as planning, organising, decision making, logic and problem solving are constantly being used. Some examples of this may be to plan a route around the shop, what to buy first, to organise self with trolley before hand, planning for money to pay for food (this can involve managing a budget). It is a concrete activity with easily identifiable goals.

Interpersonal skills
Shopping is involved and active, and uses an awareness of self. It involves frustration, tolerance, patience and coping with the pressure of other people in the shop. It involves responsibility and interaction with the cashier in order to express and therefore gratify one’s needs. It is a rewarding experience as the end product is real and concrete. It is a motivated action (to eat). A degree of trust between self and the cashier takes place (will I receive the items once I have paid?).

Intrapersonal skills
Shopping can be done individually or alone. It can
involve interaction with other people. That includes verbal and non-verbal communication skills. It involves negotiating with the environment to find items. It may involve compromise if the first choice of item is not found. Shopping involves abiding by a set of non-written rules of behaviour and sequence of actions.

**Potential for grading**
Shopping activity can be graded to incorporate budget planning, using public transport including timetables. Additionally it can be part of a domestic activity of deciding what to cook, planning for it, shopping for it and cooking it. Within the shopping activity, strategies can be used to compensate for deficits such as use of a shopping list. The above indicates what can be involved in evaluating an activity but this is not an exhaustive list.

**Summary**
Within this article, an introduction to occupational therapy and brain injury has been given. Some theory behind occupational therapy, the process of treatment and the value of activity has been acknowledged. Two activities of daily living have been analysed to demonstrate the skills needed to carry them out successfully. It is hoped this illustrates the ‘why’, ‘how’ and ‘what’ an occupational therapist observes during assessments of a client’s performance of these activities. Both of these activities are used as part of a client’s rehabilitation programme at Rosehill Rehabilitation Unit in Torquay.


