

International Encyclopedia of Rehabilitation

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Self-Awareness

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Introduction

Self-awareness, commonly referred to as ‘insight’, is a term used in the rehabilitation context to describe a patient’s acknowledgement of his or her strengths and limitations, in particular the ability to understand the nature of impairment and appreciate its implications. Self-awareness is a cognitive process requiring integration of information from both external reality and inner experience. This is reflected in the definition of self-awareness as “the capacity to perceive the self in relatively objective terms whilst maintaining a sense of subjectivity” (Prigatano and Schacter 1991, 13). Therefore, self-awareness involves an interaction between thoughts and feelings. It is this subjective or affective component that distinguishes self-awareness from self-knowledge. In addition to an appreciation of one’s present state (and how it differs from the pre-morbid state), self-awareness involves the ability to determine one’s future state, or set realistic goals for the future.

Self-awareness may also be called ‘metacognition’, which refers to a person’s ability to be aware of his or her own cognitive functions, or ‘knowing about knowing’. Metacognitive functions include the ability to self-monitor and self-correct behaviour, and are among the highest cognitive functions. Self-awareness is broader construct however, since it relates not only to awareness of cognitive abilities, but physical, social, and communicative functions as well.

Impaired self-awareness is commonly seen in patients with brain impairment, and is prevalent in patients with frontal lobe damage and associated executive dysfunction. The pre-frontal cortex, which is particularly vulnerable in traumatic brain injury, is thought to be involved in metacognitive functions, although functional imaging studies suggest have demonstrated that some non-frontal areas also have a metacognitive role. Patients with no clear evidence of focal frontal injury can show impaired self-awareness due to the disruption of white matter pathways seen in diffuse brain injury. Impaired self-awareness can be a major problem preventing engagement in brain injury rehabilitation. A patient with low levels of self-awareness is likely to be unmotivated or uncooperative in therapy, set unrealistic goals, display poor judgement, and fail to see the need for compensatory strategies, let alone apply them in everyday life. Rehabilitation can be a frustrating exercise for both the patient and rehabilitation team as a result. Individuals with higher levels of self-awareness are more likely to actively participate in rehabilitation, experience stronger therapeutic alliances, and achieve better rehabilitation outcomes in terms of level of community integration.

Although self-awareness is generally regarded as a positive sign for involvement in rehabilitation, improvements in self-awareness have also been linked with the development of emotional distress such as depression and anxiety. For many

individuals, self-awareness develops as time passes following injury or onset, and they begin to understand the full impact of their injury as they attempt to return to valued activities. This can trigger feelings of despair and hopelessness in patients as the harsh reality and persisting nature of their impairments become apparent. Consequently, the ongoing monitoring of level of self-awareness and the provision of emotional support during reintegration into the community is important to ensure that patients are assisted to problem solve and employ coping strategies as self-awareness develops.

Disorders of Self-Awareness

Numerous terms are used to describe disorders of self-awareness including lack of insight, unawareness, denial, neglect, anosognosia, anosodiaphoria, indifference or unconcern. The term *anosognosia* was defined by Babinski in 1914, to mean a lack of knowledge or recognition of disease secondary to brain damage which can not be explained by primary sensory or motor impairment. Nowadays anosognosia tends to be used in a more specific sense to refer to unawareness of hemiplegia or hemianopia. *Neglect* (or inattention) is a milder disorder of bodily awareness found in patients with hemiplegia. With neglect, stimuli presented to the neglected side are extinguished if presented simultaneously with stimuli the unaffected side. Focal awareness disorders such as anosognosia and neglect are associated with right parietal damage, and are categorised as disorders of body schema.

Impaired self-awareness secondary to frontal or diffuse cortical damage involves a more generalised disorder of awareness due to damage to the brain's self-awareness mechanisms. Self-awareness may be reduced across a range of functional domains – however self-awareness in some areas, particularly physical disabilities, is often achieved more readily than self-awareness of social and emotional competence. The reporting of memory deficits in the absence of other comment about cognitive and personality changes is also common. Impaired self-awareness may be contributed to by executive dysfunction (i.e. the patient fails to monitor and evaluate the quality of his or behaviour) and impairments of abstract thinking and integration of information when comparing present function to premorbid function.

Denial of deficits is another commonly used expression describing disorders of self-awareness. The term implies explicit denial of obvious disability, and frequently refers to the motivated use of psychological defensive mechanisms (i.e. defensive denial) to avoid conscious acknowledgement of a distressing reality. In many patients with brain injury, a lack of self-awareness may have both psychological origins (i.e., denial of disability) and neurological origins (i.e., impaired self-awareness). It is thought that patients with predominantly psychologically-based denial have a more resistant or angry response, or try to rationalise their behaviour, when confronted with their difficulties; where as patients with predominantly neurologically-based unawareness may react more surprised or perplexed when faced with difficulties during a task (Prigatano & Klonoff, 1998).

Anosodiaphoria is a term used to describe a lack of affective response or indifference regarding a neurological deficit in a patient who otherwise acknowledges the deficit.

Intellectual Versus On-Line Awareness

Theoretical models of self-awareness highlight an important distinction between two types of self-awareness, namely intellectual and on-line awareness. The Pyramid Model of self-awareness proposed by Crosson et al. (1989) has three hierarchical interdependent levels of awareness. The first, intellectual awareness is at the base of the pyramid, which forms the foundation for the two higher levels of emergent and anticipatory awareness. Intellectual awareness refers to the cognitive capacity of the patient to understand that a particular function is diminished from premorbid levels and to acknowledge the possible implications deficits may have on functional performance. Emergent awareness refers to the ability to recognise a problem when it is actually occurring during an activity, whereas anticipatory awareness refers to the ability to anticipate that a particular problem may be experienced in a particular task or situation. The term “online awareness” is often used to refer to the concepts of emergent and anticipatory awareness.

Toglia and Kirk (2000) proposed an expanded model that represents a dynamic, rather than hierarchical, relationship between the two types of self-awareness, and also incorporates other aspects such as beliefs, task demands and context of the situation. This model recognises that online experiences of task performance may provide the patient with feedback to enhance their intellectual awareness, and that emergent and anticipatory awareness are task and context dependent. Within this more complex interpretation of self-awareness, one of the key elements is the distinction between intellectual and online awareness which has important implications for the assessment and treatment of disorders of self-awareness.

Management of Impaired Self-Awareness

Self-awareness is an important consideration in brain injury rehabilitation because of its implications for motivation, engagement and outcomes. There are several ways of assessing a patient’s level of self-awareness. Intellectual awareness or self-knowledge may be tapped into by asking the patient about their perceptions of their strengths and limitations. This can be done using self-report questionnaires or by clinical interview. Usually patient ratings on a questionnaire, or responses in an interview, are compared with a more objective source of information about their competencies, such as a relative’s report or the results of a clinical assessment to determine level of self-awareness.

On-line awareness, which involves the ability to detect errors during actual performance, anticipate likely problems and initiate compensatory strategies aimed at overcoming these possible problems, is assessed using more performance-based methods. Assessment involves observation of the patient’s performance during a relevant functional task and timely questioning about their performance. For example, a patient may be asked to predict his or her performance on a task before commencing it and select appropriate compensatory strategies (anticipatory awareness), or to identify and self-correct errors during actual task performance (emergent awareness).

The assessment of self-awareness also needs to consider the extent to which psychological denial may be a contributing factor, and any socio-cultural or environmental factors that may have limited the individual’s opportunity to experience the full extent of their impairments. For example, in a supported and

structured rehabilitation environment it can be difficult for a patient to understand the types of problems they might encounter as they try to return to living independently in the community and to other activities such as work. An understanding of the basis of an individual's impairment of self-awareness can be used to guide rehabilitation strategies. It is also relevant to consider the patient's emotional status and to monitor their emotional reactions to interventions designed to enhance self-awareness.

There are a range of interventions described to facilitate the development of self-awareness during rehabilitation. These include: holistic milieu-oriented neuropsychological programmes, psychotherapy, compensatory and facilitatory approaches, structured experiences, direct feedback, videotaped feedback, confrontational techniques, cognitive therapy, group therapy, game formats and behavioural intervention. Most self-awareness interventions are embedded within the rehabilitation context and are not discrete programmes on their own, which makes it difficult to empirically demonstrate their effectiveness in controlled trials. Generally however it is thought that an individualised approach to addressing impairments of self-awareness is necessary. An individualised approach takes into account whether the impairment of self-awareness is neurological, psychological or environmental in origin.

Using a biopsychosocial framework (Fleming and Ownsworth, 2006) interventions recommended for individuals with neurologically- based impaired self-awareness include: (a) selecting key tasks and environments to highlight difficulties (b) providing clear feedback and structured learning opportunities; (c) promoting habit formation through procedural learning; (d) specifically training for application outside the learning environment; (e) involving clients in group therapy; and (f) educating family and enhancing social environment supports. Individuals who present with psychologically based unawareness are more likely to respond to interventions that emphasise: (a) building the therapeutic alliance; (b) non-confrontational approaches; (c) teaching a range of adaptive coping strategies before attempting to change any maladaptive strategies that may be protecting the individual from emotional distress; and (d) using psychotherapy and adjustment counselling techniques to explore the meaning of loss and promote acceptance (Fleming and Ownsworth, 2006).

Interventions that consider socio-cultural and environmental influences recognise how these factors may hinder the opportunities to develop awareness, or may influence the extent to which individuals are prepared to self-disclose information about their impairments in a particular social context. For example, some people may think that acknowledge problems to a therapist might be disadvantageous for them in terms of clearances to return to valued activities such as work or driving. Social environmental considerations for interventions include: (a) clarifying the rationale for assessment or treatment and eliciting personal concerns, (b) providing relevant information and creating meaningful and concrete opportunities to learn about post-injury changes; (c) educating significant others and linking individuals to support/educational groups or peer-mentoring programmes; and (d) seeking advice and involvement from a cultural liaison officer (Fleming and Ownsworth, 2006).

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