Psychology and Rehabilitation in the Health Sector:

Its Role and Contribution

APS Paper prepared by

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Introduction

The discipline of psychology has a broad set of interests and specialities encompassed by both its academic and professional arms. Although the larger number of its professional and academic personnel has a strong health orientation, there are areas that focus more on organisational, community, sport, forensic and educational areas. However, many of even the less health-oriented groups have an interest in some aspects of rehabilitation of injured or disabled individuals such as is the case for organisational psychologists providing services to injured workers and sports psychologists assisting athletes recover from injury or ill-health. Most of the psychologists who specialise in the field of rehabilitation have particular postgraduate qualifications. The main areas of clinical specialisation include Clinical Psychology, Clinical Neuropsychology and Health Psychology.

The World Health Organisation (2004) defines rehabilitation as “a proactive and goal-oriented activity to restore function and/or to maximise remaining function to bring about the highest possible level of independence, physically, psychologically, socially and economically. It involves combined and coordinated use of medical, nursing and allied health skills, along with social, educational and vocational services, to provide individual assessment, treatment, regular review, discharge planning and follow-up. Rehabilitation is concerned, not only with physical recovery, but also with psychological and social recovery and reintegration (or integration) of the person into the community”. Psychologists are eminently placed to assist in facilitating the achievement of maximal rehabilitation outcomes.

Currently the skills of psychologists are under-utilised in the public health systems of Australian States and Territories, a situation that has both direct and indirect consequences for patients and public health. There is substantial evidence of the efficacy and cost effectiveness of psychological interventions in both general medical, rehabilitation and mental health settings that has not been reflected in the services provided in publicly funded health services. Members of the public who use such services are therefore disadvantaged and health services are not capitalising on potential cost savings associated with psychological interventions. Nationally, the achievement of less-than-optimal performance of the rehabilitated person adds significantly to the cost of production of goods and services within Australia.

Psychologists are trained to provide specialist assessment, differential diagnosis and therapeutic interventions for a variety of medical, neurological and mental disorders. They assist in the management of a range of cognitive, behavioural and adjustment difficulties, provide education and training to patients, carers and staff, and are involved in health promotion, including the provision of change strategies for health risk behaviours. Interventions may be offered to individual patients, patient groups or family groups as appropriate.

Any attempt to classify and portray accurately the extent and nature of this involvement runs into the complexities of organisational and functional classifications of services and facilities currently available in the health system. This paper has chosen to utilise an outline of services based on broad diagnostic groupings that are meaningful across the health system. It therefore does not rely on the common health system groupings of acute care, subacute care, community care and primary care but attempts to acknowledge these dimensions within each area. It is recognised that any classification system adopted will find itself cut across by complexities of services, policy frameworks or even disorders. Where available, detailed information about the role of psychologists in specific rehabilitation service areas is included.
References

Other Contributors
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How to use this document
This document provides an overview of the role psychologists can play in various domains of health care and rehabilitation. Each section provides a brief summary of the ways psychologists contribute to health and rehabilitation in a variety of health settings such as health education, acute and long term hospital care, rehabilitation and community health care. References are provided at the end of each section to allow individuals working within specific health areas to access the information most relevant to them and where necessary provide colleagues or employers with an overview of the impact psychologists can have in specific health areas of interest. The document does not intend to be an exhaustive document but rather a summary document providing key and relevant information about the role of psychologists in health and rehabilitation.
1 Physical Injuries

1.1 Musculo-Skeletal (Fractures and Soft Tissue)
Psychological intervention is effective in managing anxiety, depression, pain, and stress, assisting with adjustment, reducing fear of falling (particularly in the elderly with hip fractures) or fear of re-injury, and increasing self confidence, self efficacy, adaptation and return to work (Jensen & Karoly 1991; Williams & Keefe, 1991). Patients with nerve-related disorders (nerve root and plexus disorders, mononeuritis), tendon/muscle related (disorders of the cervical region, peripheral ligamentous and muscle attachment, synovium, muscle, ligament and fascia, and other soft tissue disorders such as fibromyositis) benefit from psychological intervention on an individual basis and as part of multidisciplinary team input (Feuerstein & Zastowny, 1996).

References
1.2 Pain
Clinical and health psychologists have been effective in improving pain coping and management in the acute and chronic settings. Acute pain has both physiological and psychological responses. Anxiety, depression, anger and fear are the most prominent emotions associated with pain, and as anxiety in particular is associated both with increased pain perception and with complicating factors that increase the risk to physical health and prolongation of the pain experience, psychologists play an invaluable role in developing anxiety-reduction techniques and addressing the multidimensional aspects of pain in the acute setting (Williams, 1996).

**Acute Setting**
Intervention is often brief in this setting, but when used appropriately may reduce length of stay and complications, use of medication, and frequency of outpatient visits. Engel, Von Korff and Katon, in their 1996 study of back pain in primary care, indicated that behavioural interventions targeting dysfunction, pain persistence and depression would reduce health-care utilisation and prevent accumulation of high health care costs in these patients. Turner and Jensen (1993) showed that behavioural treatment for back pain produced significant improvements in physical and psychological dysfunction as well as reductions in depression.

Clinical and health psychologists are often the co-ordinators of chronic pain management programs and are seen as essential (by the International Association for the Study of Pain) for a facility to be designated a pain clinic. A cognitive behaviour therapy approach is utilised by most pain management programs, and outcome studies have indicated the efficacy of such an approach (Turk, 1996). The cognitive and behavioural strategies utilised include coping self-statements, reinterpretating the pain response, increasing behavioural activities, diverting attention and verbally reinforcing clients when managing cognitions and behaviours associated with pain (Jolliffe & Nicholas, 2004; Asghari & Nicholas, 2004).

An increasing number of pain patients are elderly. A literature review of treatments for chronic pain in the elderly found that pharmacological treatment often has negative side effects for this population. After reviewing the evidence Gagliese and Melzack (1997) concluded that the elderly benefit more from nonpharmacological techniques for pain prevention, such as relaxation therapy and cognitive interventions.

**Rehabilitation or community setting**
Chronic pain is defined, as pain that persists beyond the usual time of recovery, frequently is difficult to localise, is not relieved or is poorly relieved by standard analgesics and/or surgical intervention, and is associated with limitations of function often disproportionate to the injury or ongoing measurable structural damage. Chronic pain management focuses on physical and psychosocial adaptation to chronic pain.

Psychologists are involved in numerous domains of treating chronic pain in a community or rehabilitation setting. The psychologists role includes assessing and treating behavioural changes due to the pain, cognitions and beliefs around pain and expectations of pain, pre-existing personality or psychological factors that may influence coping and treatment, medication or substance use or misuse and assist in the litigation status when necessary (e.g., liaising with or writing reports for workers compensation authorities or courts). Psychologists also assess and treat comorbid psychological disorders associated with pain such as depression, anxiety and post traumatic stress disorder (PTSD). Furthermore, psychologists are highly attuned to recognising psychosocial “Yellow Flags” such as poor health beliefs, tendencies for low mood and passive treatment expectations, which suggest a higher likelihood of poor outcome in individuals.
Psychologists can treat pain in individual as well as in group settings. Each may involve a range of psychological interventions including cognitive techniques, behavioural treatments, relaxation training and biofeedback, psychoeducation regarding persistent pain and pain management principles and vocational rehabilitation. Psychologists work with pain patients to assist them in setting goals, identifying triggers for pain, establishing coping strategies and promoting self management skills. Psychological treatment may focus on a number of areas including maladaptive attitudes, beliefs and behaviours, stress management, anger management, anxiety and depression, PTSD, withdrawal from medications, drugs or alcohol, sleep disturbance and sexual difficulties.

Psychologists are valuable assets in multidisciplinary pain programs (Sitley-Brown & Folen, 2005). Evidence suggests best practice for most patients with persistent pain problems is for them to be managed within a multidisciplinary pain setting (Singh, 2005). Multidisciplinary teams address the multiple complications of chronic pain (physical, functional, social and psychological) and psychologists contribute to this management using a cognitive behavioural paradigm. The patient/client however should be receptive to a management of pain approach rather than cure. Psychological treatment time frames vary depending on whether treatment is individual or group based, on the type of and location of pain, and the patient needs.

References
1.3 Amputees

Adjustment to amputation is not only important to quality of life, but also for maximal benefit from a prosthetic limb and needs to occur at both a physical and psychological level. Rybarczyk, Byenhuis, Nicholas, Cash, and Kaiser (1995) and Williamson, Schulz, Bridges and Behan (1994) have found no connection between the level of amputation and physical impairment. Further, the extent of limb loss is a poor predictor of adjustment to amputation, however psychological factors such as coping style have been reported to be important (Livneh, Antonak, & Gerhardt, 1999). Clinical depression has been reported in between 21-35% of amputees and high levels of anxiety are also common (Rybarczyk, Szymanski, & Nicholas, 1995). Younger amputees have increased depression and psychological symptomatology (Frank et al., 1984). In addition, individuals with upper limb injuries are more vulnerable to emotional difficulties, including vulnerability to post traumatic stress disorder (Cheung, Alvaro, & Colotla, 2003). These all hinder progress in rehabilitation and increase the length of inpatient stay.

Van Dorsten (2002) offers treatment suggestions using a cognitive-behaviour approach following amputation. Specific techniques for intervention with phantom limb pain have been recommended by Rybarczyk et al. (2000), depending on the type of pain involved; i.e. burning pain is best treated by increasing blood flow using thermal imagery, whilst cramping pain is most responsive to relaxation strategy.

Clinical and health psychologists provide psychological assessment and treatment to patients who have undergone an amputation, usually targeting depression, anxiety, body image issues and adjustment to limb loss. They can also provide pain management strategies and education about the psychosocial aspects of amputation and have an important role liaising with other team members about progress in rehabilitation.

References


1.4 Burns
Both in the acute care setting, and during the long-drawn-out rehabilitation phase necessary for many burns patients, psychologists provide interventions aimed at managing pain, anxiety and depression, and preventing post-traumatic stress disorders (PTSD) and chronic adjustment problems from occurring. Research with this population has indicated improved pain management and reduced incidence of PTSD following psychological intervention (Dolce, 1987; Patterson et al., 1993)

References
1.5 Spinal cord injury
Psychologists play an important role within the rehabilitation team that provides the wide range of medical and psychosocial services that are required to facilitate optimal recovery following traumatic spinal cord injury (SCI). Major life changes are associated with spinal cord injury and psychologists are able to assist in dealing with adjustment to tetraplegia or paraplegia, and the limitations, restrictions and other issues that arise as the person gradually prepares for discharge and attempts to re-establish in the community (Young, Murphy, & Athanasou, 1996). The development of effective health self-management skills is central to the prevention of unexpected readmissions to hospital for complications such as urinary tract infections and pressure sores. Psychologically-based interventions can assist the individual to gain the appropriate levels of personal control to prevent the development of many unnecessary complications that interfere with the resumption of, or the holding of, expected social roles post discharge.

Acute setting
In the acute care setting, obvious priority is given to patient survival, the prevention of neurological deterioration, the stabilising of the spine and the optimising of physiological functioning. During this initial stage of treatment, psychological components of care are still important, especially as they can facilitate secondary and tertiary prevention initiatives.

The three main areas to be monitored by psychologists are: (1) the development of appropriate levels of patient self-management; (2) establishing the nature and extent of social support maximally consistent with treatment goals; and (3) the emotional adjustment of both patient and family/significant others.

In the acute setting, psychologists working with spinal cord injured patients have clear objectives of assessing client history and social supports and skills. The psychologist is also able to assess patients for risk factors that may contribute to poor patient outcome including history or presence of psychological disorders such as depression, anxiety, cognitive impairment or PTSD (Elliot & Kennedy, 2004; Kennedy, Duff, Evans, & Beedie, 2003; Kennedy & Duff, 2001). Psychologists are trained to provide support and psychoeducation to the patient and family regarding the adjustment process and necessary lifestyle changes which are vital to patient outcome following a SCI.

Rehabilitation ward or hospital
In the rehabilitation hospital or ward, the main tasks are for the patient to master all necessary self-care activities, including gaining the knowledge and skill to direct those who are to perform such tasks on the patient’s behalf. To maximise independence in self-care, the patient must maximize functional ability; hence physical rehabilitation activities are key components of therapy at this stage. Self-care activities and physical rehabilitation activities need to be complemented by activities to facilitate post-discharge vocational and social achievements, including education regarding sexuality and sexual relations (Kennedy, Henderson, & Gallagher, 1996). Part of the psychologist’s role in the rehabilitation ward when working with people with SCI, is to provide psychological treatment to those patients experiencing difficulties including depressed mood, fear, post traumatic stress, anxiety, anger and pain (Elliot & Kennedy, 2004). Psychologists are integral to the multidisciplinary team as they can take leadership in the design and effective implementation of staff responses to patients with challenging behaviours and also provide staff with psychoeducation around physical and lifestyle changes the patient may be facing along with different types of coping skills. Psychologists are appropriately trained to discuss issues pertinent to spinal cord injury patients and
their families, including sexual dysfunction, managing personal care attendants, educational and vocational issues, leisure options and community resources.

**Community-based rehabilitation setting**

Following discharge from the rehabilitation hospital or ward, the main tasks of the individual living with SCI are (a) maintaining skills in self-care and ADL in the regular domestic setting, and (b) community re-establishment, including return to work services for those who wish to seek post-injury employment. The psychologist’s role in community-based rehabilitation includes providing services to maximise maintenance of skills learnt in acute care and rehabilitation unit (self-management strategies). The psychologist can also provide the patient with problem-solving skills relevant to life planning with a SCI and provide individual or group counselling to maximize the individual’s success in the pursuit of chosen rehabilitation goals (Kennedy, 1991). Psychologists are also equipped to provide information and advice to any involved community-based case managers and provide individual treatment for those patients experiencing difficulties with emotional adjustment post discharge.

**References**


2 Neurological Injuries

2.1 Traumatic Brain Injury

The consequences of traumatic brain injury (TBI) include cognitive and behavioural limitations, as well as motor-sensory deficits and emotional distress. Such consequences impact upon interpersonal relationships with family, friends, work-mates and others resulting in marital or other relationship breakdown, sexual dysfunction, family conflict and social isolation (Donnelly, Donnelly, & Grohman, 2000). The emotional impact of the injury is often profound, and clients frequently experience symptoms of anxiety, depression, feelings of hopelessness and suicidality, poor self-confidence, low self-esteem (Jorge & Robinson, 2002; Simpson & Tate, 2002). Behavioural, cognitive-behavioural, psychotherapeutic, or family therapy interventions are often used (Mateer, Sira, & O’Connell, 2005). The choice of techniques is determined by the degree of cognitive deficits the person experiences (e.g., people with severe memory disorder will not remember many aspects of therapy sessions; people with poor conceptual skills or inflexibility may not be able to understand a cognitive-based intervention) and issues are addressed in a variety of formats, depending upon the specific circumstances including individual treatment, group treatment or with family or significant others.

Rehabilitation ward or hospital

Brain injury patients can experience post-traumatic amnesia (PTA), cognitive deficits and challenging behaviour. The patient with PTA may be disoriented, amnesic, have impaired executive abilities (e.g., judgement, decision making), and have behavioural disturbances (Ahmed, Bierley, Sheikh & Date, 2000; Levin, O’Donnell & Grossman, 1979). The roles of the psychologist may be to monitor recovery and provide consultation to rehabilitation staff and family regarding the nature of PTA, its length and sequelae including agitated behaviour. Cognitive deficits include problems in attention, memory, executive abilities (e.g., planning, problem solving, decision making), visuo-spatial abilities, insight and awareness and language (Levin, et al., 1979; Ahmed et al., 2000). The psychologist assists in monitoring the recovery of those cognitive functions via neuropsychological assessment and provides consultation on impairments, severity of impairments, the consequences of these impairments on rehabilitation and the impact these impairments may have on everyday functioning. Using the results of the neuropsychological assessment, psychologists guide other therapy programs (e.g., occupational therapy), offer psychological interventions for remediation of cognitive impairments (e.g., memory notebook training, study skills), assist in formulating rehabilitation plans (e.g., advise on discharge, driving, vocational impact) and can provide feedback and counselling to the patient and family regarding the translation of the results into everyday language, the functional consequences of impairments, and assess possible adjustment issues and provide support or treatment (Rath, Simon, Langenbahn, Lynn, & Diller, 2003).

Patients with TBI can also experience challenging behaviours, which may involve disorders of control, i.e., poor self-regulation of behaviour, including verbal/physical threats and aggression, anger, sexual disinhibition and tactless speech (McGlynn, 1990; Simpson, Tate, Ferry, Hodgkinson, & Blaszczynski, 2001). Patients may also experience impairments that involve disorders of drive including inertia, adynamia, difficulty sustaining activity levels, aspontaneity and poor initiation (Tate, 1999). Psychologists provide behavioural and cognitive-behavioural interventions, ranging from a counselling approach through to detailed behaviour modification programs. Selection of intervention techniques will depend upon the nature and extent of all the patient’s impairments. The psychologist involves nursing and/or therapy staff when conducting an intervention, or, if in an outpatient setting, the family.
References
2.2 Stroke
The psychological, social, behavioural and financial consequences of a stroke are varied and pervasive across numerous life domains. Patients who survive a stroke can have impaired executive functioning such as reduced ability to plan, problem solve or self monitor, attentional and concentration deficits such as short term memory loss, and visuospatial and perceptual difficulties such as agnosia, neglect, apraxia, aphasia, dyspraxia of speech, dysarthria and dysphagia (National Stroke Foundation, 2005).

Acute setting
Neuropsychologists systematically assess and document an individual’s cognitive strengths and weaknesses using validated tools to establish patterns of impairments of higher cerebral functioning. Neuropsychologists aid in developing differential diagnoses, cognitive rehabilitation planning (developing strategies or techniques which enable patients, and their families, to live with, manage, by-pass, reduce or come to terms with their cognitive deficits), management of challenging behaviours, and counselling (providing services to both patients and their family members). Neuropsychologists can offer neuropsychological testing within the first days of admission and provide immediate information regarding the extent of cognitive impairment and make recommendations to the multidisciplinary team around appropriate cognitive rehabilitation planning.

Neuropsychologists can offer recommendations regarding discharge according to the extent of cognitive and behavioural impairments and also mediate good discharge planning within the team to maximize the successful reintegration of the stroke survivor and their families into the community (Rudd, Wolfe, Tilling, & Beech, 1997). The neuropsychologist can assess both patient and carer post-discharge needs (physical, emotional, social) and liaise with the patient’s GP to provide continuity of care after discharge, including provision of equipment and support services (National Stroke Foundation, 2002). Prior to discharge, the psychologist can act as an educator to the patient and families regarding the immediate and long-term consequences of stroke and expected outcomes of rehabilitation. Prigatano and Wong (1999) reported that brief but focused neuropsychological findings predicted outcomes from inpatient rehabilitation of stroke patients.

The role of psychology in the acute stroke ward and rehabilitation extends beyond neuropsychology to include the clinical skills of other specialist psychologists including clinical, health and counselling psychologists. The specialist psychologist can provide assessment for suspected psychosocial difficulties including mood disorders, anxiety and emotional lability during the acute phase. Upon identification of such issues, psychologists can provide psychoeducation, advice and the opportunity for patients and carers to discuss their psychosocial concerns or difficulties (National Stroke Foundation, 2002). Patients with a confirmed psychosocial complaint can be provided with a management plan and psychological treatment and if deemed appropriate the psychologist can refer patients to psychiatry or provide a recommendation to the patient’s treating GP regarding pharmacotherapy.

Rehabilitation ward, hospital or community-based rehabilitation
Cognitive impairment has important implications for participation and outcomes in rehabilitation and in the community (National Stroke Foundation, 2005). Attention and concentration deficits are common amongst stroke patients and as such can make all forms of rehabilitation intervention difficult. As such, specialist psychologists may use cognitive therapy in rehabilitation to address patients’ attention and concentration deficits (National Stroke Foundation, 2005). A systematic review found that cognitive rehabilitation improved measures of alertness and attention in stroke
patients (Lincoln, Majid, & Weyman, 2000). Psychologists can also develop memory cues and strategies with clients, which assist people with memory and executive functioning deficits (Wilson, Emslie, Quirk, & Evans, 2001). Neuropsychologists can also assess the extent of visuospatial and perceptual deficits to ensure a stroke patient's safety around the home and community is maintained.

Due to the mix of physical, psychosocial and financial consequences of stroke, survivors must be reintegrated into their premorbid lifestyle and community slowly, and be well supported. Specialist psychologists including clinical, health and neuropsychologists have the training to implement planning strategies around self management programs, activities of daily life, exercise, leisure activities and return to work (National Stroke Foundation, 2005). Furthermore, such psychologists can provide expert advice and support around issues of sexuality, relationships and also the new role carers face when a partner has experienced a stroke and either enters full time care or requires home care. As many aspects of life are altered, adjustment during the rehabilitation period and beyond is particularly important. Psychologists are trained in the provision of problem solving counselling and psychoeducation, which are effective interventions for families and patients post stroke (Bhogal, Teasell, & Foley, 2003; Evans, Matlock, Bishop, Stranahan, & Pederson, 1988).

Stroke survivors often develop psychological disorders such as mood and anxiety disorders. Comorbid depression occurs in approximately 30-60% of stroke survivors (Hibbard, Gordon, Stein, Grober, & Sliwinski, 1993). Depression most commonly develops within the first few months after the stroke but it may however require close monitoring for at least six months post event. Specialist psychologists can assess and treat patients with mood disorders but also detect patients who are at risk of developing a mood disorder, and therefore liaise with patients’ GPs or community health services to ensure they are monitored appropriately. Treatment of mood disorders is essential to improve quality of life and to maximise the effectiveness of rehabilitation. A combination of pharmacotherapy and psychological treatments, including cognitive behavioural techniques, is generally the most appropriate treatment for stroke survivors with co-morbid depression and or anxiety (Hackett, Anderson & House, 2004; House, Hackett, Anderson, & Horrocks, 2004; National Stroke Foundation, 2005).

References


2.3 Epilepsy

Neuropsychologists make careful evaluations of the higher cognitive functioning of patients with epilepsy. These are necessary for differential diagnosis, assessment during functional imaging or cognitive testing procedures, decision making on the appropriateness for epilepsy surgery, treatment planning, assessment of treatment efficacy, monitoring of a patient’s cognitive status over time, as well as the effects of medication, and pre and post neurosurgical procedures.

Acute Setting
Epilepsy can require significant pharmacological intervention and/or surgery to manage seizures, leading to hospital inpatient stays and acute setting management.

A multidisciplinary approach, which includes psychologists at all stages in the management of epilepsy, is desirable. This extends from diagnosis to lifelong management or surgery. Such involvement canvasses a number of issues, including: correct diagnosis, information regarding the patient’s condition and any related cognitive issues, information regarding surgical management (as relevant), and detailed exploration of the patient’s aims and expectations related to all forms of treatment and epilepsy management to assist with overall adjustment issues (Duncan & Thompson, 2003).

Prior to resective surgery (a possible management option in those cases where a single seizure focus has been identified), clinical neuropsychologists can assess the risk of post surgical cognitive deficits using a variety of cognitive measures and clinical techniques (O’Shea, Saling, & Berkovic, 1999). Clinical neuropsychologists also have a significant role to play in the determination of cerebral language dominance and may also have a role in intra-operative cognitive mapping procedures to minimize the surgical risk to eloquent function (e.g., language). Furthermore, clinical neuropsychologists, clinical psychologists and health psychologists can contribute to the assessment of premorbid personality and psychopathology prior to surgery thus identifying those patients “at risk” for the development psychopathology following surgery (Koch-Stoeker, 2002; Carran, Kohler, O’Connor, Bilker, & Sperling, 2003).

Community or hospital rehabilitation
Some of the psychosocial consequences of epilepsy include stigma, underachievement in academic settings, reduced vocational opportunity, suboptimal interpersonal relationships and social development, chronic emotional distress, lack of independence, and inability to attain a driver’s licence contributing to social isolation.

Those who undergo successful resective surgery face significant adjustment to life after the sudden alleviation of chronic epileptic seizures (Wilson, Bladin, & Saling, 2004). Patients require additional coping strategies to deal with new roles not associated with being epileptic and also discard old roles associated with their illness. Patients may experience numerous behavioural changes including excessive activity, increased or decreased sex drive and new somatic complaints (Wilson, et al., 2004; Baird, Wilson, Bladin, Saling, & Rutens, 2004). Psychologically, there can be a sense of cure, increased expectations and grief for years lost (Wilson et al., 2004). Psychologists are appropriately trained to manage adjustment to life post epileptic surgery.

Depression is the most prevalent psychological disorder that exists co-morbidly with epilepsy, affecting approximately 50% of patients with recurrent seizures and 10% of those with controlled seizures (Bortz, 2003; Kanner, 2003). There is paucity in the data to suggest psychological treatment can reduce seizure frequency or duration,
however there is growing evidence to suggest interventions such as CBT can treat comorbid psychological disorders in people with epilepsy (Goldstein, McAlpine, Deale, Toone, & Mellers, 2003; Ramaratnam, Baker, & Goldstein, 2003). One study found CBT, while not impacting seizures, reduced the negative impact of epilepsy on everyday life (Goldstein et al., 2003). A systematic review of psychological treatments for people with epilepsy found educational interventions increased knowledge of the epilepsies, CBT reduced depression in some individuals, and relaxation combined with behaviour modification reduced symptoms of anxiety (Ramaratnam et al., 2003).

In addition to the physical effects of seizures, people with certain forms of epilepsy may experience a range of cognitive difficulties both as a primary and secondary effect of seizures (Helmstaedter, Kurthen, Lux, Reuber, & Elger 2003). Deficits in recent memory and new learning are particularly common, impacting on day-to-day memory abilities (Helmastaedter & Kurthen, 2001; Wilson & Clare, 2003). Clinical neuropsychologists can assess the extent of cognitive impairment and provide strategies to aid adjustment and manage new or long-standing cognitive difficulties.

References
2.4 Neuropathology and the Aged
Psychologists in Australia currently have a very limited to nonexistent role in aged care facilities (Snowdon, Ames, Chiu, & Wattis, 1995; Snowdon, Vaughan, & Miller, 1995) or with older people in general (Over, 1991). This situation exists despite the many services that neuropsychologists, clinical and health psychologists can and do provide to older people in both the assessment and treatment of disorders in this age group. Psychologists work with older people in Aged Care Teams, established memory clinics such as Cognitive Assessment Dementia Services (CADMS) and private practice. These roles display the specialised training that psychologists have in the objective assessment of cognitive and behavioural functions.

Rehabilitation ward, hospital and aged care facilities
Many residents of aged care facilities show signs of one form of dementia, of which Alzheimer's disease is the most common. Behaviours such as wandering, verbal outbursts, physical aggression, and repetitive behaviours, including calling out and making noise, are frequently associated with dementia and lead to substantial increases in the cost of care, both within institutions and for those living at home. Pharmacological treatment is often used to treat behavioural disturbances, however these are frequently inappropriate or ineffective (Ramadan, Naughton, & Prior, 2003). Psychological interventions in aged care services are not only effective (Cohen-Mansfield, 2003; Opie, Rosewarne, & O’Connor, 1999), but also demonstrably less costly than conventional forms of treatment. Psychosocial interventions for disruptive behaviour in people with dementia have been found to reduce the number of hospitalisations incurred, reduce self-reporting of drug side effects and reduce medical intervention by general practitioners and psychogeriatricians (Bird, Llewellyn-Jones, Smithers, & Korten, 2002).

Many chronic physical conditions such as arthritis, heart disease, and obstructive lung disease have important psychological consequences that can interfere with both current medical treatment and impair the quality of life of those with such conditions. Psychological services can be of substantial benefit in these cases and have been shown to be effective in treating conditions such as incontinence (Burgio, 1998) and chronic pain (Cook, 1998).

Community-based rehabilitation
The many agencies that provide services under community care programs largely concentrate upon home care and medical care services (e.g., home cleaning, supervision of medication administration). Few agencies address the psychological needs of older clients, despite a high incidence of depression and anxiety in this group. Psychologists in these roles are trained to detect the presence or onset of psychological disorders such as depression and anxiety, or even conditions such as personality disorder, substance abuse or psychosis. Such disorders are treatable conditions and psychologists could intervene appropriately to detect conditions at earlier, more treatable stages.

Mental impairment is often related to whether individuals suffered injurious falls and therefore early psychological management of home-dwelling aged individuals with cognitive impairment might result in fewer injurious falls, which in turn would result in less physical and psychological strain on the individual and substantial health care savings.

References


2.5 **Multiple Sclerosis**

Clinical, health and neuropsychologists contribute significantly to the rehabilitation of people with multiple sclerosis (MS) by providing brief, expertly focused and efficient assessment or screening services for the detection or identification of the many ‘hidden’ and often devastating psychological and neuropsychological problems that can trouble people with MS (Beatty, 1993). Psychologists also provide more comprehensive assessment services, for clarifying the nature and severity of frequently complex psychological and neuropsychological changes in individuals with MS. Furthermore, psychologists are trained in and can provide evidence-based treatment and management services focused on the long-term, rather than short-term, health goals of the individual, in order to lessen the impact of these changes on the quality of life of the person with MS.

There is mounting evidence that when people with MS who have cognitive impairments are provided with appropriate neuropsychological services (particularly within a holistic rehabilitation service), they cope better with the impact of their cognitive problems (Hamalainen, Sienela, & Ruutianen, 1999), have less conflict within their relationships (Foley et al., 1994; Hamalainen et al., 1999), maintain more socially acceptable behaviours & therefore minimise the risk of social isolation (Benedict et al., 2000), have better rehabilitation outcomes (Baker & Tickle-Degnen, 2001), are able to stay employed for longer (Beatty, Blanco, Wilbanks, Paul, & Hames 1995), and have a better quality and length of life (LaRocca, Kalb, Foley, & Caruso, 1993).

Evidence is also accumulating that when people with MS who have emotional problems are provided with appropriate clinical and health psychology services, they obtain a faster, more accurate diagnosis of trauma, depression and suicidality, so that their extremely high risk of major depression and suicide (Scott, Allen, Price, McConnell, & Lang, 1996; Richard, 1998, Minden, Oray, & Reich, 1987; Stenager & Stenager, 1992) is effectively addressed and treated. They also obtain more effective and efficient therapy that incorporates an appreciation of the impact of disability, uses appropriate management strategies, and is based within a positive-focused, rehabilitative approach (Koch & Kelly, 1999; Mohr & Cox, 2001; Landoni, Giordano, & Guidetti, 2000). Other benefits of clinical and health psychology services include a greater uptake and use of immunotherapy treatments, and a greater sense of feeling ‘heard’, understood, respected and ‘helped’ (Chalfant, Bryant, & Fulcher, 2004).

In addition to direct services to individuals with MS, clinical and health psychologists and neuropsychologists provide educational and consulting services to other members of the rehabilitation and health care team regarding the best management and treatment of cognitive and psychological problems in MS. They also provide educational and counselling services to the families and carers of people with MS. This psycho-educational service helps both the wider rehabilitation team of health professionals, and the support network of families and other carers, work more effectively, efficiently, and confidently with the complex combination of psychological and neuropsychological problems experienced by many people with MS.

**References**


3 Mental Health

3.1 Psychotic Disorders
Numerous psychological techniques can be used to treat psychotic disorders within the health and rehabilitation setting. Mounting evidence suggests cognitive behavioural therapy is a promising treatment for schizophrenia, particularly in reducing and improving symptoms, reducing distress and improving function and relapse rates (American Psychiatric Association, 2004; National Institute of Clinical Evidence, 2002).

Family intervention has been shown to decrease the frequency of relapse for up to two years but impact on other outcomes is equivocal (Pharoah, Rathbone, Mari, & Streiner, 2003). The NICE Clinical Guidelines (2002) found strong evidence however that family interventions effectively improve medication adherence and reduce relapse rates. Psychoeducation, both at an individual and family level, has been found to be an effective intervention for schizophrenia, particularly in increasing knowledge about the disorder and adherence to medication, and also decreasing relapse rates (Henry & Ghaemi, 2004; McFalane, Dixon, Lukens, & Lucksted, 2003).

Research has found insufficient evidence to draw substantial conclusion regarding the use of solution-focused therapy (Eakes, Walsh, Markowski, Cain, & Swanson, 1997), hypnosis (de Izquierdo Santiago & Khan, 2004), attention training (Suslow, Schonauer, & Arolt, 2001) or other psychological therapies in treating psychotic disorders. It is well established however that psychosocial interventions (in general) combined with somatic interventions (antipsychotic medication or electroconvulsive therapy) are more effective than are somatic interventions alone (Mojtabai, Nicholson, & Carpenter, 1998).

References
3.2 Depression/Anxiety

Given that anxiety and depression are now considered the third highest disorders in terms of the population burden of disease categories (around 18 per cent of population affected) this has become a serious concern for health policy planners. Furthermore, depression is the most prevalent psychological condition that exists comorbidly with chronic illness. For example, it is estimated that depression affects approximately 16% to 23% of cardiac patients, and 20% to 35% percent of cancer patients (Burg & Abrams, 2001; Frasure-Smith, Lesperance & Talajic, 1993; Zabora, BrintzenhofeSzocK, Curbow, Hooker, & Plantoadosi, 2001; Sellick & Crooks, 1999; Harter et al., 2001). Depression and anxiety reduce the quality of life of patients with chronic illness, reduces the likelihood patients will comply with protective behaviours and medication regimes and negatively affects recovery and prognosis (Burg & Abrams, 2001; Mayou et al., 2000; DiMatteo, Lepper & Croghan, 2000; Zielgelstein et al., 2002; Kelly, Ghazi & Caldwell, 2002; Smith, Gomm & Dickens, 2003; Badger, Braden, Mishel, & Longman, 2004).

It has been shown that for disorders such as major depression, a combination of both medication and psychological interventions provides the best outcome (Frazer, Christensen, & Griffiths, 2005). A large number of studies have shown that psychotherapy, in particular cognitive behaviourial therapy in the treatment of depression, produces outcomes that are comparable to, or better than, outcomes associated with medication alone, and reduces the risk of relapse following treatment (Gloaguen, Cottraux, Cucherat, & Blackburn, 1998; DeRubeis et al., 2005). Furthermore, dropout rates for participation in treatment are much higher for pharmacological treatments than they are for psychological interventions or for combined psychological and pharmacological treatments.

An often under-recognised psychological condition relevant to the health and rehabilitation sector is the case of specific phobias regarding surgery, needles, dentistry and other medical procedures (Hamilton, 1995). Individuals with such phobias can experience significant distress which may impinge upon them seeking or receiving medical treatment. Psychological treatments including exposure, desensitisation and relaxation are effective methods of reducing anxiety around medical procedures and can be performed bedside in hospital or rehabilitation wards or in private practice (Hamilton, 1995; Thom, Sartory & Johren, 2000).

References


3.3 Trauma
Psychological trauma, including post traumatic stress disorder (PTSD) and acute stress disorder (ASD), is commonly associated with numerous presentations in a rehabilitation and acute hospital setting in adults and children. Patients in these settings often experience PTSD in response to, but not restricted to, experiences of war (Creamer, Morris, Biddle, & Elliot, 1999), physical injuries including those caused by motor vehicle accidents (O'Donnell, Creamer, Byrant, Schnyder, & Shalev, 2003; Sterling, Kenardy, Jull, & Vincenzo, 2003), physical assault (Brewin, Andrews, & Rose, 2003), natural disasters (Carr et al., 1997) and man-made disasters such as terrorist acts (Fullerton, Usano, & Wany, 2004; Miller, 2002). Furthermore, individuals exposed to traumatic injury have increased rates of substance abuse, phobias and major depressive disorder (O'Donnell, Creamer, Pattison, & Atkin, 2004).

Acute and rehabilitation or hospital ward setting
PTSD is commonly and effectively treated by psychological techniques (McDermott, 2004; Harvey, Bryant, & Tarrier, 2003; Hembree & Foa, 2000). The psychologist in a rehabilitation or acute setting will have varied roles depending on the nature of the trauma and sequelae that follows. Psychologists have a pivotal role in the multidisciplinary rehabilitation team as they can support patients through the transition between inpatient, outpatient and day program treatments. They also communicate and disseminate information between disciplines to ensure optimal and continuity of care. Clinical and health psychologists have skills to assess patients for ASD and PTSD and also assess and make recommendations around those likely to develop PTSD later. Furthermore, psychologists can offer effective treatment programs for co-morbid psychological conditions and lifestyle issues such as substance abuse and addictive behaviours. PTSD can be effectively managed at a group or individual level, and psychologically-based treatment programs generally incorporate psychoeducation about trauma, symptom management, relapse prevention, exposure, education and support for partners and discharge planning due to the chronicity of the condition. Psychological programs for PTSD have shown improvements in a range of psychosocial domains however PTSD often remains chronic and long lasting in many cases (Creamer et al., 1999).

References


4 Other Health Disorders

4.1 Cardiac

The efficacy of psychological interventions with surgical, hypertensive, angioplasty and angina pectoris patients has been established (Appels, Baer, Lasker, Flamm, & Kop, 1997; Fahren, 1990; Gallacher, Hopkinson, Bennet, Burr, & Elwood, 1997; Huijbrechts, Erdman, Duivenvoorden, Deckers, & Leenders, 1997; McGee, 1994; Yates, 1984). Improvement was found on outcome measures such as reduced frequency of chest pain, reduced hospital stay, lower average medical-surgical cost for those receiving psychological intervention, decrease in mean exhaustion scores, reduced risk of new coronary event and a decrease in general morbidity. Body weight, mood state and functional capacity also showed improvement.

As cardiovascular disease (CVD) remains the leading cause of death in Australia (Australian Institute of Health and Welfare [AIHW], 1999), and as the various conditions comprising CVD share a number of (modifiable) behavioural risk factors, the importance of effective cardiac rehabilitation has been increasingly recognised. Cardiac rehabilitation (CR) has been defined as “the combined and co-ordinated use of medical, psychosocial, educational, vocational and physical measures to assist cardiac patients to return to an active and satisfying lifestyle and prevent re-occurrence of cardiac events” (National Heart Foundation of Australia [NHF], 1993). The successful treatment of cardiac patients requires the provision of significant rehabilitation services. Comprehensive cardiac rehabilitation programs involving a range of health professionals facilitate initial recovery but also have an important role to play in secondary and tertiary prevention of cardiovascular disease and its predictable sequelae. There are three recognised phases of cardiac rehabilitation, and appropriately-trained psychologists have a role to play in each phase: Phase One (in-patient); Phase Two (out-patient); and Phase Three (community-based services to enhance long-term maintenance of appropriate lifestyle behaviours).

In terms of the economic analysis of the benefits of cardiac rehabilitation, one Swedish study (Levin, Perk, & Hedback, 1991) estimated that the reduced hospital re-admissions and increased post-discharge work productivity associated with an effective cardiac rehabilitation program saved the Swedish health and welfare system more than $AUS15, 500 per patient. Vocational services represent an important component of effective CR programs. Clark et al. (1992) described one heavily psychology-based self-management intervention (PRIDE program). The program yielded a range of psychological, social and behavioural benefits for participating cardiac out-patients. Compared with the control subjects, the self-management program participants achieved more appropriate emotional behaviour and reported less impact of the cardiac event on their psychosocial functioning.

The actual role played by a psychologist working in a cardiac rehabilitation setting varies widely across hospitals and facilities as well as across different health systems. The list below represents key role activities relevant to each phase of cardiac rehabilitation, but their actual prominence depends on local organisational and service-delivery-system characteristics:

Phase One role behaviours:
During Phase One of cardiac rehabilitation, psychologists can provide individual therapy regarding adjustment, liaise with other cognate services such as psychiatry and social work on behalf of the client and provide psychoeducation regarding rehabilitation to the client and family members. Psychologists can also conduct applied research or evaluation studies regarding the cardiac rehabilitation process and outcomes achieved. Psychologists can also provide risk-factor assessment, covering behavioural, social and psychological factors (e.g. depressed affect, sleep
problems, personal control issues) and deliver specific interventions for patients whose optimal recovery is threatened by psychosocial factors (e.g., CBT for specific fears, behavioural modification of unhelpful lifestyle behaviours). Psychologists can also provide staff training (e.g., avoiding burnout, handling inappropriate patient anger) and educate health professionals on the role of the psychologist in cardiac rehabilitation services.

**Phase Two and Phase Three role behaviours**
In addition to the roles performed during Phase One of cardiac rehabilitation, psychologists can offer counselling and interventions regarding rehabilitation outcomes including life planning and retirement later in the recovery period. Psychologists can also liaise with and refer to relevant community-based health services (e.g., QUIT, Diabetes specialists) and facilitate relevant community-based support groups (e.g., groups for discharged cardiac patients, groups for spouses/partners).

**References**


4.2 Cancer
Cancer treatment of the disease is often traumatic for patients and their families, and a large number of people who are afflicted by cancer experience psychological morbidity related to the diagnosis and treatment process (Luebbert, Dahme, & Hasenbring, 2001). Research with cancer patients has reported benefits from psychological intervention resulting in significantly reduced mood disturbance, fewer phobic responses and lowered pain experience (Spiegel, 1991).

Additionally, neuropsychologists provide expertise in the evaluation of the cognitive effects of brain tumours (malignant and non-malignant) and other cancers of the nervous system, have a role in the rehabilitation planning and monitoring following treatment. The value of careful evaluation of the risks and benefits of new anticancer drugs, radiation, and combinations of radiation and chemotherapy on neuropsychological function has been recognised in reducing symptoms and improving the physical and psychological health of individuals with malignant brain tumours (Grill et al., 1999; Groves, Maor, Meyers, Kyritsis, & Kevub, 1999; Meyers Hess, Yung, & Levin, 2000).

Women who have been treated for breast cancer may, in addition to psychological difficulties experienced by other cancer patient groups, experience body image concerns and poor sexual functioning. A literature review by Glanz and Lerman (1992) identified cognitive therapy, social support, supportive information, and the development of coping strategies as predictors of better outcome for this patient group. Psychologists are central to the effective delivery of such services.

References
4.3 Surgery
Research which focused on the preparation for surgery and surgery recovery (in general surgery/hospital patients, those undergoing cardiac or colorectal surgery, anterior post-myocardial infarction, amputees, elderly persons with hip fractures) concluded that the benefits of psychological intervention included fewer days spent in hospital, reduced need for medication and post-operative outpatient visits and greater medical treatment compliance (Anderson, 1987; Alberts, Lyons, Moretti, & Erickson, 1989; Groth-Marnat & Edkins, 1996; Jacobs, 1988; Stuart & Cole, 1996).

Other positive outcomes included enhanced ability to manage illness, improved scores on depression and anxiety rating scales and better adaptation to pain.

Neuropsychological evaluation of patients undergoing neurosurgical procedures is of value to the medical team for pre-surgical consultation regarding cognitive status. Those patients, for instance, who have had anterior communicating artery ruptures/clipping, are more likely to have cognitive and behavioural difficulties rather than physical, and inpatient rehabilitation focuses on diagnosing and treating the cognitive and behavioural problems. Such intervention has proven to be cost effective (DeLuca, 1992).

Patients tend to experience increased anxiety and stress both before and after invasive medical procedures, which can lead to ongoing psychological difficulties such as depression, anger, and adjustment problems (Horne, Vatmanidis, & Careri, 1994). Psychological interventions to address these issues have been shown to improve coping and promote better and faster recovery (Johnston & Vogele, 1993).

References
4.4 Diabetes

Type 1 diabetes results from autoimmune difficulties that arise during childhood or early adolescence (Feifer & Tansman, 1999). Type 2 diabetes is considered a “lifestyle” disease as it often arises from poor lifestyle and health choices and develops in adulthood. Type 2 diabetes accounts for approximately 90% of those affected by the disease (Feifer & Tansman, 1999). As such, diabetes is largely a preventable disease. In addition, diabetes management is largely dependent on behavioural self-regulation (Gonder-Frederick, Cox, & Ritterband, 2002). Psychologists are frequently involved in behavioural interventions and in the development of management programs to help patients adhere to strict intensive treatment routines. Strong evidence suggests that such interventions can prevent some of the devastating long-term effects of diabetes and promote physical and emotional well-being (Gonder-Frederick et al., 2002).

Acute

The initial diagnosis of diabetes (either type 1 or type 2) can be a shock and cause significant distress in patients and family members (Hoff, 2005). In conjunction with a team of health professionals including medical practitioners and diabetes educators, psychologists can offer patients psychoeducation regarding the physical and psychological effects of diabetes, lifestyle change requirements and are able to assess and treat cognitive and behavioural barriers to effective diabetes management.

Hospital and Community

Optimal diabetes care involves multidisciplinary teams including mental health professionals (Feifer & Tansman, 1999). Psychological management of people with diabetes has been found to increase patient acceptance of the disease state, enable behaviour change for self-management and remove psychological barriers to disease control (Feifer & Tansman, 1999). The psychologist working within multidisciplinary diabetes teams can improve primary care integration by suggesting guidelines for diabetes care in line with the client’s readiness to change or self-manage and enhance doctor-patient communication (Feifer & Tansman, 1999).

Psychosocial issues that often affect people with diabetes include reduced working ability, adjustment issues, problems with adherence and self-management, depression, anxiety and eating disorders (Feifer & Tansman, 1999; Sacco et al., 2005; Rubin & Peyrot, 2001). For example, recent research suggests one in five people with diabetes experience depression yet less than one third have their depression diagnosed or treated (Gavard, Lustman, & Clouse, 1999; Lustman, Clouse, Alrakawi, Rubin, & Gelenberg, 1997). Co-morbid psychological disorders often make diabetes self-management more difficult and are often associated with poorer control of blood glucose levels (Rubin & Perot, 2001).

A recent review and meta-analysis of randomised controlled trials of psychological interventions with people with type 2 diabetes found individuals who receive psychological therapies have improvements in their long-term glycaemic control and psychological distress (Ismail, Winkley, & Rabe-Hesketh, 2004). A psychosocial intervention focussed on coping skills training reduced the physiological and psychological effects of diabetes including increased self-efficacy, decreased distress and increase overall quality of life (Grey et al., 1998). Another intervention involved behavioural monitoring programs and record sheets, which helped improve self-management, diet and exercise (Bielamowicz, Miller, Elkins, & Ladewig, 1995).
Prevention

As diabetes type 2 is often caused by lifestyle choices, psychologists are the preferred profession to involve in lifestyle change. Lifestyle issues that can be addressed by psychologists include obesity, physical inactivity and poor diet, which are often precursors to diabetes (Uusitupa, 1996). Tailored interventions for lifestyle change have also been found to increase the motivation of people with diabetes to take action in making lifestyle changes, decrease the barriers to change, reduce fat intake and increase lifestyle physical activity (Clarke, Hampson, Avery, & Simpson, 2004a; Clark, Hampson, Avery, & Simpson 2004b).

References


4.5 Infectious Diseases
Patients who suffer from infectious diseases affecting the central nervous system in particular (diseases including meningitis, encephalitis, brain abscess and AIDS among others) benefit from psychological input in the short and longer term in relation to identification of specific cognitive deficits and strengths, compensatory strategies, and behaviour management. Psychological treatment together with educational information has been found to be helpful in addressing life style and adjustment issues (Boller & Suarez, 2003; Damasio & van Hoesen, 1985; Hokkanen & Lanes, 1997; Lezak, 1995; Warrington & Shallice, 1984).

References
4.6 Obstetrics
Clinical and health psychologists are valued for their contribution to the well being of women, particularly for the role the psychologist can play in assisting the rehabilitation of women who suffer a still birth, lose a child shortly after birth, have a disabled child, suffer post natal depression or have problems adjusting to being a parent. Neuropsychologists are often called on to assess mothers who have suffered a stroke during labour or shortly after giving birth, and to assist with their rehabilitation, as well as offering supportive counselling (Blasco & Vermy, 2003; Mehl-Madrona, 2002).

References
4.7 Plastic Surgery
Psychological counselling or intervention assists in the rehabilitation of people who have suffered disfiguring injuries, or need to undergo a number of painful procedures to correct a disability (Perugi et al., 1997; Phillips & Diaz, 1997; Pruzinsky, 1992; Sarwer, Pertschuk, Wadden, & Whitaker, 1998).

References
4.8 Respiratory and sleep medicine
There are over 2.2 million people with asthma in Australia and it affects 14-16% of children (approximately 1 in 6) and 10-12% of adults (approximately 1 in 10) (Asthma Foundation, 2006). Despite new medical treatments, the prevalence and mortality rates of asthma have not declined (Aboussafy, 2002) and the illness is associated with increased risk of psychological disorders such as anxiety and depression (Lehrer, Feldman, Giardino, Song, & Schmaling, 2002). Several meta-analytical studies of the effectiveness of psychological interventions to treat this group of health consumers have been conducted. Devine (1996) reported results from an analysis of 31 studies looking at education, behavioural skill development, cognitive therapy and non-behavioural counselling in the treatment of adults with asthma. Education and behavioural interventions were found to improve clinical outcomes including reduced occurrence of attacks, enhanced functional status, increased adherence to treatment, more appropriate use of medications and healthcare, and improved psychological well being in adults with asthma (Devine, 1996).

References
4.9 Obesity

A recent study suggests that approximately 60% of the Australian adult population are overweight or obese (Cameron et al., 2003). Based on the 2004 population figures, this percentage translates to approximately nine million overweight or obese Australian adults (Thorburn, 2005). There is a marked increase in prevalence of obesity, which has been attributable to a toxic environment, which discourages physical activity while encouraging poor dietary habits (Wadden, Brownell, & Foster, 2002). Obesity is an increasing problem in developed countries and is associated with significant levels of physical and emotional suffering for the individual, and is a huge economic burden for the community (Wadden et al.).

Health psychology has maintained a major focus of research into health related behaviours and prevention of serious illness, significantly contributing to a richer understanding of the immediate and long term consequences of negative health related behaviours such as over eating and a sedentary lifestyle (Wadden, et al., 2002). In addition to preventative health, psychologists are well equipped to provide psychological treatment to obese individuals and their families.

As obesity often involves both psychological issues (e.g., health beliefs, body image disturbances, eating disorders) and behavioural issues (poor eating habits, sedentary lifestyle), cognitive behavioural therapy administered by psychologists, is a very appropriate and effective means of treating the epidemic of obesity. The Clinical Practice Guidelines for the Management of Overweight and Obesity in Adults, endorsed by the National Health and Medical Research Council (NHMRC) in 2003, recommends that behavioural therapy, including self-monitoring, social support and stimulus control, should be a part of all weight loss interventions. A Cochrane Review of psychological interventions for overweight and obesity found most evidence to support the use of cognitive and behavioural strategies in treating obesity (Shaw, O’Rourke, Del Mar, & Kenardy, 2005).

A review of the literature comparing the effectiveness of behavioural intervention techniques (e.g., diet, exercise) with medical treatment (e.g., medication) demonstrated that behavioural techniques were more effective in both weight loss and ongoing maintenance than were medical interventions (Garrido, 1982). Garrido proposed that psychological interventions serve to increase motivation among obese patients. Another study found both cognitive and behavioural treatments had a significant and lasting positive impact on shape concern, weight concern, binge eating, self-esteem and depression at a 1 year follow up (Nauta, Hospers, & Jansen, 2001). In addition, one study found behavioural and psychodynamic inpatient treatment for severe obesity to be equally effective improving eating behaviour, well-being, body image and life satisfaction (Beutal, Thiede, Wiltink, & Sobez, 2001).

There is significant and mounting research to suggest that psychologists have the appropriate training and skills to treat individuals who are overweight or obese. In addition to psychological treatment, psychologists can offer psychoeducation to individuals and families regarding the consequences of obesity and also provide supportive counselling and treatment for co-morbid conditions such as depression or anxiety, which are often associated with obesity (Roberts, Deleger, Strawbridge, & Kaplan, 2003). Furthermore, psychologists can work within the health sector and community to identify early risk factors for obesity and provide early intervention to those at risk of developing eating disorders associated with obesity (Streigel-Moore & Steiner-Adair, 1998; Wilfley, Pike, & Streigel-Moore, 1997).
References
5 Primary and Community Care and Rehabilitation

One area of significant development both at a health policy and clinical practice level is the set of community-based services accessed through the primary care system or from the acute care or community care public systems. Psychologists form part of a group of health professionals accessed through these systems. They are generally accessed through their private practices or sometimes contracted to provide these services. Populations using these psychology services can be divided into those with compensable injuries or illnesses and those with non-compensable injuries or illnesses.

5.1 Psychological Services within Compensable Rehabilitation systems

Although each State and Territory within the Commonwealth has unique legislation covering the rehabilitation services and entitlements of those injured at work or while travelling in a vehicle, most schemes share a number of similarities. The arrangements within the state of Victoria provide a not atypical basis for describing the situation with respect to psychological services available to support the rehabilitation of those with an entitlement.

Services provided on referral from General Practitioners

Within workers’ compensation systems, there are two quite separate domains of service within which psychologists can operate. First, as health care providers, psychologists can deliver needed services to eligible individuals. Usually injured workers would be referred to a psychologist by a treating GP, and the costs of services would be claimed back from the workers’ compensation authority or its insurance agent. (The amount re-imbursed may be less than the standard fees set by a professional body such as the APS.) Prominent services required would be those from clinical and health psychologists (e.g., psychological services for a chronic pain problem) or, in the case of head injury, referral would often be to neuropsychologists. The extent and nature of psychological services provided, depends largely on the psychologist’s relationship with the primary care practitioner, and the GP (or its clinic equivalent). Second, there is room for psychological services to be provided within approved “return-to-work” plans or community re-integration service plans for those without significant vocational potential.

Approved Occupation Rehabilitation Providers

In occupational rehabilitation, this second area of service is the domain of the Approved Occupational Rehabilitation Provider; an organisation approved to develop and implement rehabilitation plans, subject to guidelines and regulations of the workers’ compensation authority or its insurance agents. Most Approved Occupational Rehabilitation Providers are small organisations or independent (health) practitioners who operate under a case management model of service delivery. Services are also provided by CRS Australia, a Commonwealth funded rehabilitation service. Frequently, Approved Occupational Rehabilitation Providers employ a variety of allied health staff in positions labelled “rehabilitation consultant”. Thus the rehabilitation consultant will conduct an initial rehabilitation assessment so as to identify required services to return the injured worker to suitable employment or a non-work alternative. There are no specified qualifications for those acting as the case manager or rehabilitation consultant, and psychologists may act in this role. Within the service plans developed by the case manager, there may or may not be “psychological” services identified. Thus, services to assist an individual to adjust to a return to work in a different role might be specified on a service plan, but be not delivered by a psychologist.

Within transport accident insurance, psychological services are mostly provided as part of “medical and like” services, although in Victoria there is a move to increased
use of community case managers, who typically would be allied health professionals, usually Occupational Therapists.

Both workers’ compensation systems and transport accident insurance systems are under scrutiny to provide effective rehabilitation services. Evidence-based psychological services, targeting the needs of the most expensive client groups within the various systems, should be of interest to relevant policy makers and senior management.

**APS Priorities for Compensable Rehabilitation Systems**

Within the workers’ compensation systems (which are different in each State), APS priorities would need to be developed, separately, for the twin domains (A: services provided on referral from GPs; B: psychological services provided as part of a service plan developed by an Approved Occupational Rehabilitation provider).

Goals for Domain A would evolve from a review of the role and remuneration of private practitioners involved in providing services to injured workers. Goals for Domain B would involve a “turf war” in an attempt to have more, and better quality, psychological services included in approved plans. For example, job-finding skills training is an area not done well within the current arrangements. This is an area that has been well researched by psychologists, and particular programs have good evidence support (see Young et al., 1996).

Within the transport accident insurance field, APS priorities should be linked to services to the most “expensive” client groups: typically these are: those with acquired brain injury (ABI rehabilitation); those living with spinal cord injury (SCI rehabilitation); and those injured as children (paediatric rehabilitation).

The key parties that should be involved in the APS priorities for compensable rehabilitation systems are:

- Workers’ compensation authorities in each State, Territory, and federally (for Commonwealth employees);
- Associations of Approved Occupational Rehabilitation Providers;
- Employer groups;
- Union organisations; and
- Motor accident or transport accident authorities in each State and Territory.

The aforementioned key parties (as listed above), exert influence in areas such as:

- Schedules of fees (i.e., amounts to be re-imbursed for particular services);
- Decisions regarding “approved” psychologists registered to provide services to eligible clients;
- Qualifications of case managers and rehabilitation consultants (higher ratio of psychologists);
- More psychological services within approved service plans: and
- Recruitment of senior psychologists to regulating authorities to facilitate the provision of effective rehabilitation psychology services to clients with established service entitlements.

### 5.2 Non-Compensable services

Non-compensable cases benefiting from psychological rehabilitation services can include a wide range of conditions. Neurological rehabilitation may follow a non-compensable traumatic brain injury (e.g., fall from a home balcony), or an acquired brain injury following a cerebrovascular accident (CVA), brain tumour, degenerative brain disease, encephalitis, or hypoxic brain damage. Physical rehabilitation follows amputations, as well as bone fractures as a result of falls, which are common in the aged. Often a combination of both physical and neurological rehabilitation is needed, such as with CVAs and multiple sclerosis. Symptoms mentioned earlier in the
document, such as depression, anxiety, posttraumatic stress disorder and adjustment disorder are all found with non-compensable cases.

Current service availability
Most non-compensable psychological rehabilitation services are offered in hospitals to inpatients and outpatients. However, there are exceptions. Some hospitals do not have rehabilitation psychology input and rely upon access to Liaison Psychology services, which service the general needs of the whole hospital. Whilst in NSW some specialist organisations such as the Multiple Sclerosis Society employ psychologists, in general most organisations do not offer any psychological services.

In many states the focus is on developing home or community-based rehabilitation services in order to reduce a person’s inpatient stay in hospital. When home rehabilitation services are developed, psychology is often not considered to be a ‘core’ part of the team. Home and community-based rehabilitation teams that lack a psychology-trained member are poorly equipped to work with individuals with significant cognitive, behaviour, and emotional difficulties, which can directly impact on their progress in therapy.

Access by aged care services to psychological services is also variable. Some are able to access neuropsychologists for consultation, but have minimal or no access to clinical or health psychology input. Equity of access to services varies tremendously, even from one hospital to another.

References
6 Concluding Postscript

6.1 Obstacles for Psychologists in Rehabilitation and the Health Sector

Outcomes in rehabilitation are often measured by changes in physical and functional abilities such as independence in daily living, with some focus on cognitive functioning. The use of the FIM (Functional Independence Measure) as a pre-post rehabilitation measure in hospitals is an example of this. Psychological issues such as adjustment problems, depression, grief, anxiety, post-traumatic stress disorder, anger, changed social roles and body image problems receive less attention, despite the literature indicating that psychological symptoms hinder progress in rehabilitation and may increase length of stay in hospitals.

Referral to psychological services can be associated with a stigma because patients may perceive that they are “not coping” or “weak” if they need the service. This can especially occur with males. Young male spinal cord injured patients can be especially sensitive about a psychological referral, even though they present with numerous health psychology and psychosocial issues.

In some areas, the split between clinical, health psychology and neuropsychology services may complicate the picture. For example, a neuropsychologist will carry out the assessment and then refer to a clinical or health psychologist for treatment of depression and vice versa. There may be waiting periods for both professionals, slowing down progress in rehabilitation. Whilst specialisation is invaluable in providing expert services, there is danger in losing sight of the “whole” person as his/her problems become split amongst various allied health professionals. The adoption of effective case management models of service delivery can minimise the emergence of such problems.

Chronic and complex medical conditions may need longer intervention and follow up than simpler cases, however staffing levels and waiting lists in most organisations do not allow adequate follow up/maintenance to occur. For example, adjustment to amputation can be a slow process if the upper limbs are involved, and sometimes prostheses are rejected after considerable time and resources have been spent on making them and training the person to use them.

The current system is poor at meeting the needs of complex cases – for example, a psychotic breakdown in an individual with acute acquired brain injury who was unable to be contained in an inpatient rehabilitation ward and was, initially, viewed as not suitable for an inpatient psychiatric ward.

Access to clinical and health psychologists and neuropsychologists who can provide advice and strategies to enable others to work more effectively with clients with specialist rehabilitation needs such as ABIs are limited. As a consequence, these individuals frequently ‘fall through the gaps’ in the community. Follow-up studies consistently identify psychological problems as the greatest barrier to a person’s adjustment and coping following an ABI.

In hospitals, territoriality issues are common and ‘ownership’ of a position by a department or medical specialty is seen as the ideal situation. This prevents other areas from accessing the services of the psychologists, even if the workload greatly changes.

Referrals for psychological services are often dependent on the referring person’s perception of the value of the service. In addition, the focus of the service is often on ‘crisis intervention’ as opposed to interventions that enable the client to deal more effectively with their psychosocial issues before these reach crisis point.
6.2 Current and Future Outcomes for Psychology in Health Rehabilitation

**Quality of services**

With increasingly stringent requirements for organisations to be accredited, psychologists have focused more on the delivery of quality services within their profession, as well as being involved in larger scale (multidisciplinary) outcomes. Ongoing requirements for professional development activities help to ensure that clinicians’ skills are continuously being updated. However, education and peer support is needed to ensure that clinicians gain the skills required to work in many rehabilitation settings, particularly those that are community-based.

**Enhancement of services**

Equity of access to psychological services in the area of rehabilitation needs to be ensured. In order for this to occur, an adequate quantum of psychologist positions must be provided. In Victoria, the Allied Health in Rehabilitation Consultative Committee has attempted to identify standards and staffing guidelines for psychologists working in various rehabilitation settings, including spinal, neurological, and ABI services. Most services would fall far short of what is deemed ‘best practice’.

**Areas for action/suggestions**

Psychologists can learn from other allied health professions by setting up formal interest groups to disseminate knowledge, share information and broaden possible research. In New South Wales, a neuropsychology rehabilitation interest group meets regularly and circulates information via the internet for those unable to physically attend. The focus is not limited to neuropsychology. There is considerable benefit from neuropsychologists, clinical and health psychologists sharing information and working together.

Psychologists need to continue educating the medical profession and other allied health professionals on the value of our services in the rehabilitation area by publishing in medical journals and presenting at medical and other conferences. Being a member of working party groups in the public system (such as Area Stroke Working Parties) can also enhance the profile of the profession.

Professional psychologists and/or members of the APS need to be involved in committees and working groups at the State and Federal government level in order to raise the profile of psychology. Outside the hospital setting, General Practitioners should be targeted with educational information about the services offered.

Psychologists can also educate consumers by presenting at consumer group meetings, interest days, seminars, conferences, and being available to offer ‘educational’ information to family members.