International Encyclopedia of Rehabilitation

Center for International Rehabilitation Research Information and Exchange (CIRRIE)
515 Kimball Tower
University at Buffalo, The State University of New York
Buffalo, NY 14214
E-mail: ub-cirrie@buffalo.edu
Web: http://cirrie.buffalo.edu

This publication of the Center for International Rehabilitation Research Information and Exchange is supported by funds received from the National Institute on Disability and Rehabilitation Research of the U.S. Department of Education under grant number H133A050008. The opinions contained in this publication are those of the authors and do not necessarily reflect those of CIRRIE or the Department of Education.

Mental Health and Disability

Anne Honey
University of Sydney, Australia

Eric Emerson
University of Sydney, Australia

Gwynnyth Llewellyn
University of Sydney, Australia

Maina Kariuki
University of Sydney, Australia

Disability is a multi-dimensional concept and experience, arising from the interaction of health conditions and the environment (World Health Organization 2001). Although disability has been variously defined and measured, definitions used in the International Classification of Functioning, Disability and Health (ICF) and the UN Convention on The Rights of Persons with Disabilities (UNRPD) are seen as current best practice, defining individuals with disabilities as those who experience long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (Officer and Groce 2009; United Nations 2006; World Health Organization 2001). While terms such as mental health problems, mental disorders and mental illness are often used interchangeably and do not have exact definitions, they all describe changes in thinking, mood or behaviour that are associated with distress or impaired functioning (Sawyer et al. 2000). In this chapter, *mental disorder* is used to describe a set of symptoms that are clinically diagnosable under the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association 1994). *Mental health problem* is used to encompass both diagnosable mental disorders and symptoms of mental illness that may be sub-clinical.

Current global estimates indicate that around 10% of people live with a disability (Mont 2007) and this number is growing as a result of a number of factors including increased survival rates for children with a disability and increased population life expectancies (Australian Institute of Health and Welfare 2008; Perrin 2002; Sawyer et al. 2007). People with disabilities appear to be at greater risk of mental health problems than the general population and therefore make a disproportionate contribution to mental health morbidity internationally. For example, about 59% of people with common mental disorders in Australia also have physical conditions (Australian Bureau of Statistics 2008). The personal and social costs of mental disorders are considerable throughout the world. Mental disorders account for 20% of the total burden of disease worldwide, while depression alone is the number one contributor to non-fatal burden of disease and disability for both high and low/middle income countries (Lopez et al. 2006; Prince et al. 2007). The mental health of populations has been recognized as an international priority (World Health Organisation 2005). An important part of addressing this will be attending

to the needs of people with disabilities who are a disproportionately disadvantaged group. In the following sections we briefly examine what is currently known about the association between disability and mental health, plausible explanations for this association, and strategies for addressing the discrepancy in mental health between people with and without disabilities.

What do we know about the association between disability and mental health?

While it is well recognized that most people with disabilities do not have mental health problems, as a population group their risk of negative mental health outcomes is greater than for the general population (Emerson et al. 2008; Honey et al. in press; Miauton et al. 2003; Wolman et al. 1994). For example, the National Mental Health Survey in Australia indicated that 29% of people with disabilities reported an anxiety disorder and 17% reported an affective disorder in the last twelve months compared to 12% and 4% respectively for people with no disability or no specific limitations or restrictions (Australian Bureau of Statistics 2008). Similarly, 36% of British children with intellectual disability have a diagnosable mental health disorder, compared with 8% of other children (Emerson and Hatton 2007b).

There is a great deal of heterogeneity, however, in the prevalence of mental health problems across disability groups. For some conditions, the evidence is inconclusive as to whether people with the condition have poorer mental health outcomes than their non-disabled peers. For example, while one study found that young people with sickle cell disease had higher levels of depression and lower self-esteem (Seigel et al. 1990), others report no difference in body image, self-esteem, or mental health compared to a control group (Cepeda et al. 2000; McClish et al. 2005). For other disability groups, such as people with intellectual disabilities and traumatic brain injury, there is fairly consistent evidence of increased risk of mental health problems (Chan et al. 2009; Cooper et al. 2007; Kolaitis 2008). Several researchers have attempted to identity condition-related variables responsible for these varied outcomes. For example, one research group has suggested that damage to the central nervous system is a key factor for young people whether emotional and social development is affected by having a chronic health condition (Noll et al. 1999). Alternatively, differential risk may reflect the varying importance of the social determinants and consequences of specific health conditions.

Disability is also more common amongst people with mental disorders than people without mental disorders. In Australia, disability was reported by around 12% of people without mental disorders compared to about 29% of people with mental disorders (Australian Bureau of Statistics 2008). Research has also shown that people with mental health problems are far more likely than other citizens to suffer from potentially disabling illnesses such as heart disease, high blood pressure, respiratory disease, diabetes and stroke and to develop these problems at an earlier age than other people (Disability Rights Commission 2006).

Why do people with disabilities have relatively poor mental health?

Most research on the association between disability and mental health is cross-sectional, limiting the conclusions that can be drawn about causality. The study suggested that there are three hypotheses about why people with disabilities have poorer mental health than their non-disabled peers. First, the experience of living with a disability, or having a health condition or impairment associated with disability could lead to mental health problems; second, people with mental health problems could be more likely to subsequently become disabled; and third, other factors, such as socioeconomic factors, might independently increase the risk of disability and mental ill health. We examine evidence for each of these three possibilities.

Having a disability increases the risk of mental health problems

There is evidence that mental health problems can be a secondary complication to the acquisition of a disability or the experience of the illness or injury to which the disability relates. Not only can some disease processes affect the brain, but the medications used to treat particular conditions can have negative mental health effects (e.g., Malek-Ahmadi and Hilsabeck 2007; Prince et al. 2007). Further, injury or chronic disease can result in psychological burdens such as trauma, threat of declining health and mortality, lifestyle changes, difficult symptoms such as pain, unpleasant treatments, stigma, loss of social support and relationship breakdown (Prince et al. 2007). For people with intellectual disabilities, other factors such as poor problem solving and emotional control, communication difficulties, and high rates of physical and sexual abuse may also increase vulnerability to mental health problems (Dagnan and Lindsay in press).

The idea that disability can contribute to mental health problems is supported by longitudinal research. Lucas (2007) found, in a large sample of British adults, that psychological distress increased significantly after disability onset. While there was evidence of a gradual reduction in distress over time, distress was still higher 4 years after disability onset than at baseline. Further, the incidence of mental health problems has been shown to increase after the onset of potentially disabling physical illness including myocardial infarction, stroke, HIV infection and injury (Prince et al. 2007). Other prospective studies have found that confinement to a bed or chair, spinal pain and neurologic and gastro-intestinal disease are strongly associated with increased risk for first-onset depression (OR=4.0) (Bruce and Hoff 1994; Carroll et al. 2003)

Considerable individual variability exists, however, in how an individual's mental health may be affected by disability onset. In a recent analysis of Australian population based, longitudinal data we identified three distinct classes of mental health trajectories for people after the onset of a long-term disability (Kariuki et al. in preparation). Two of these classes exhibited mental health scores similar to the national average prior to disability onset. The trajectory for one group (accounting for 65% of the population) indicated that mental health did not significantly worsen with the onset of disability; for a smaller group of people (16%), their trajectory demonstrated rapid mental health deterioration after disability onset, reaching a level suggestive of mental disorder.

Individuals belonging to the latter group were more likely to be younger; not in employment, education or training before the onset of disability; not living with both parents at 14 years of age; born overseas; and have parents whose highest level of educational attainment was year 12 level or below.

Having a mental disorder increases the risk of disability

Having a mental disorder has been shown to influence both the chances of illness or impairment and the chances that an illness or impairment will have a disabling effect.

The physical health of people with mental disorders is notoriously poor (Citrome and Yeomans 2005). Mental disorders have been shown to increase the risk of disease including heart disease, diabetes, stroke, HIV/AIDS and tuberculosis and to contribute to accidental and non-accidental injuries (Prince et al. 2007; Rethink 2005). This might be partly due to: the associations between mental disorders and lifestyle risk factors such as obesity, smoking and low adherence to condom use; biological effects such as that of depression on serotonin metabolism and inflammatory processes; and the adverse effects of psychiatric medications including heart disease, Parkinsonism, osteoporosis and seizures (Disability Rights Commission 2006; Prince et al. 2007).

For those with an existing illness or impairment, having a mental disorder as well is associated with worse outcomes, such as complications and poor functioning, than for those without a co-morbid mental disorder (Prince et al. 2007). These individuals are therefore more likely to become and remain disabled. A number of factors may contribute to this (Disability Rights Commission 2006; Piachaud et al. 2009; Prince et al. 2007; Rethink 2005; Thornicroft 2006). First, people with mental disorders, especially psychotic disorders, may be less likely to seek treatment for early symptoms of physical illness due to issues such as cognitive impairment, social isolation, distrust of medical staff, and lack of social skills. Second, they may be less likely to receive a timely diagnosis due to difficulty in accurately conveying symptoms; the reduced rates at which people with mental disorders are provided with some evidence-based checks and diagnostic tests; and diagnostic overshadowing, where all reported symptoms are seen as related to the mental disorder. Third, evidence shows that people with mental disorders do not receive the same level of treatment as other people. Such discrimination may reflect a number of underlying processes such as diagnostic overshadowing, inadequate staff training, or the physical health of people with mental disorders being accorded less priority than other patients. Fourth, people with mental disorders have been shown to be at greater risk of non-adherence to medical and behavioural treatment regimens.

Risk factors in common

Mental disorders may share common risk factors with other health conditions and disabilities (Prince et al. 2007). Many studies have shown that people with disabilities are more likely than others to experience social disadvantage, low socio-economic status and inadequate social support (e.g., Emerson et al. 2009a; Emerson et al. 2009b; Gannon and Nolan 2006; Jenkins and Rigg 2004). There is also strong evidence linking these same factors to worse mental health (e.g., Fagg et al. 2006; Fone et al. 2007; Gallo and Matthews 2003; Klineberg et al. 2006; Sawyer et al. 2000; Wight et al. 2006). Downward

social mobility has been attributed to both disability and mental disorders, largely due to exclusion from the labour market and the costs associated with disability (Emerson et al. 2009b; Gannon and Nolan 2006; Piachaud et al. 2009). Reduced social support may also be a consequence of both disability and mental disorder, particularly due to stigma and discrimination. However, there is a considerable literature that demonstrates a temporal sequence suggesting that factors like social support and economic status help to determine both mental health and disability (Marmot 2005; Perry 1996; Strategic Review of Health Inequalities in England Post-2010 2010; Wilkinson 2005).

In an Australian national sample of 3392 young adults, of whom 475 reported having a disability, we found that although those with disabilities reported poorer mental health than their nondisabled peers overall, this relationship was moderated by both financial adversity and social support. Minimal differences in mental health were observed between the groups under favourable social conditions of high social support and low financial hardship (Honey et al. in press). This finding supports international studies that have suggested that the impact of disability can be exacerbated or ameliorated by social and economic factors (Emerson and Hatton 2007a; Emerson et al. 2009a; Smith et al. 2005; Wight et al. 2006).

The influence of socio-economic factors on the mental health of people with disabilities is consistent with resilience frameworks (e.g., Luthar 2003; Smith et al. 2005). These suggest that the presence of one stressor makes people more vulnerable to the effects of other stressors. Gallo and Matthews (2003) suggest that, when coping with negative life events or circumstances, individuals use tangible, personal and social resources from their 'resource bank'. Those who live in worse socio-economic situations have lower 'reserve capacity' in this resource bank because they are exposed to more situations in which they must use their resources and because their circumstances prevent them from developing and replenishing these resources. These circumstances include lack of material resources to cope with any negative events; neighbourhoods characterized by deficient community resources and high rates of crime and violence; and high risk of several other factors, such as marital breakdown and substance abuse, that reduce social support. Using this framework, disability becomes a potential stressor. Conditions such as financial hardship and low social support may deplete an individual's resources to below the level at which effective coping with disability can occur, resulting in reduced mental health and a higher risk of mental disorders.

Improving the mental health of people with disabilities

While there is clearly a need to address the physical health inequities experienced by people with mental disorders (Disability Rights Commission 2006; Rethink 2005), this chapter is concerned primarily with the mental health inequities faced by people with disabilities. These can be addressed through prevention initiatives and through the provision of mental health interventions that are appropriate for people who have other disabilities.

Prevention

There are two possible approaches to the promotion of mental health and the prevention of mental disorders in people with disabilities. The first is reducing the risk that people with disabilities will be exposed to conditions which are detrimental to mental health. The second is to improve the resilience of people with disabilities.

Evidence about the importance of socio-economic factors highlights a need for social and fiscal policies that reduce the chances of people with disabilities being exposed to the sorts of social conditions that negatively influence mental health (Emerson et al. 2009a). For example social policies to reduce income inequality could be expected to reduce the incidence and prevalence of both disability and mental disorders, and the association between the two. It is also important to ensure that policies facilitate employment for people with disabilities as unemployment contributes to financial hardship, social network contraction and psychological distress (Claussen 1999; Morrell et al. 1994). Unemployment is currently significantly higher amongst disabled people (Australian Bureau of Statistics 2005; Loveland et al. 2007) and this gap has shown no signs of narrowing in recent years (Australian Institute of Health and Welfare 2008; Emerson et al. 2009a). For those people with disabilities who are unable to work or unable to provide for themselves sufficiently through work, social protection should be provided at a level that is sufficient for people with disabilities and other vulnerable groups to live "flourishing" lives and participate in their communities (World Health Organisation 2008). Unfortunately even in higher income countries, income support payment rates for people with disabilities have failed to take account of the considerable extra costs associated with disability, resulting in people with disabilities facing high rates of poverty and hardship (Saunders 2006). Lastly, broad based policies that address such issues as public attitudes, disability discrimination, physical accessibility of community resources, and accessibility of information are needed to address disadvantages in social interaction and support and other elements of social exclusion for people with disabilities, such as exclusion from political engagement and civic participation (Burchardt et al. 2002). These types of prevention strategies address the need to understand mental health problems in vulnerable communities "less in terms of individual pathology and more as a response to relative deprivation and social injustice, which erode the emotional, spiritual and intellectual resources essential to psychological wellbeing" (Friedli 2009).

Prevention efforts aimed at improving individual resilience to environmental risk factors fall into three categories (Mrazek and Haggerty 1994). Universal interventions are directed at entire communities. Selective interventions target high-risk groups based on demographic characteristics, such as people with disabilities. Indicated interventions are aimed at individuals who have been identified as having sub-clinical symptoms or early signs but who do not yet fulfill the criteria for having a mental disorder.

We found no studies that specifically investigated the efficacy of programs for preventing mental health problems amongst people with disabilities. However there is some evidence for the effectiveness of prevention programs more generally (Vitaro and Tremblay 2008; Webster-Stratton and Taylor 2001). For example, programs based on interpersonal psychotherapy and cognitive-behavioural therapy, particularly selective and

indicated programs, have been found to be effective in preventing depression (Barrera et al. 2007; Cole 2008; Cuijpers et al. 2008; Gladstone and Beardslee 2009; Stice et al. 2009) and anxiety disorders (Bienvenu and Ginsburg 2007; Feldner et al. 2004). As an 'at risk' group, people with disabilities may benefit from such approaches. Further, evidence from studies with people with spinal cord injury and arthritis indicate that the coping strategies people with disabilities use can influence their mental health (Pollard and Kennedy 2007; Treharne et al. 2007), suggesting that coping skills training in particular may be helpful. As is discussed below, however, people with cognitive disabilities, such as those with intellectual disabilities or brain injury, may not respond to talking therapies without some modification of the methods used.

Treating mental health problems

For most people with disabilities there is no good reason to believe that generic evidence based treatments will be more or less efficacious than for people without disabilities. Perhaps for this reason, the treatment of mental health problems in people with disabilities has not been investigated. Investigations into mental health interventions for people with particular conditions are sparse and have not produced convincing evidence of the efficacy of particular treatments (e.g., Elliott and Kennedy 2004; Walker and Gonzalez 2007).

For people with intellectual disabilities, often considered among the most vulnerable and underserviced groups with regard to mental health (Yen et al. 2009), there is a lack of a strong evidence base to support interventions (Gustafsson et al. 2009; Hemmings 2008). For this group in particular, talking therapies, such as CBT and psychotherapy could not be expected to be used in the same way as for people without cognitive impairments. These approaches would be unsuitable for clients without enough verbal understanding and expressive abilities to engage in the necessary dialogue. For others, modifications may be required such as reducing the level of abstraction in conversations, shorter session times, and use of pictorial images such as time-lines. In psychoanalytic interventions, interpretive links should be made in smaller parts so that clients can retain what is being said, while for cognitive behavioural therapy aids to memory and concentration may be needed, such as flip charts, visual aids and role plays, with literacy based materials being adapted, such as by using tape recorders, dictaphones or simplified diaries with stickers (Beail and Jahoda, in press).

There is evidence internationally that high proportions of people who have mental disorders do not seek or receive mental health treatment (e.g., Australian Bureau of Statistics 2008; Costello et al. 2007; Freedenthal 2007). For people with disabilities, additional barriers such as physical access and a lack of understanding of mental health workers about disability issues may further reduce service usage. It is therefore important for mental health services to be "disability friendly". Further, disability workers and others coming into contact with people with disabilities should be proactive in liaising with and referring people with disabilities to mental health services rather than assuming that problems with adjustment to disability are inevitable or will improve with time.

Conclusion

People with disabilities are at greater risk of mental health problems than other members of the community. A multitude of factors appear to contribute to this association including the life consequences of disability, the poor health of people with mental disorders and the circular relationship that exists between disability, social exclusion and mental health problems. Mental health and disability awareness need to be integrated into social policy and health care delivery at all levels.

References

American Psychiatric Association. 1994. Diagnostic and Statistical Manual of Mental Disorders. Washington (DC): APA.

Australian Bureau of Statistics. 2005. Australian Social Trends 2005. Canberra: ABS.

Australian Bureau of Statistics. 2008. Mental Health and Wellbeing Survey 2007. Canberra: ABS.

Australian Institute of Health and Welfare. 2008. Disability in Australia: Trends in prevalence, education, employment and community living. Canberra: AIHW.

Barrera AZ, Torres LD, Munoz RF. 2007. Prevention of depression: The state of the science at the beginning of the 21st century. International Review of Psychiatry 19(6):655-670.

Beail N, Jahoda A. in press. Working with people: Direct interventions. In: Emerson E, Hatton C, Bromley J, Caine A, Gone R, Dickson K, editors. Clinical Psychology and People with Intellectual Disabilities. 2nd ed. Chichester: Wiley.

Bienvenu OJ, Ginsburg GS. 2007. Prevention of anxiety disorders. International Review of Psychiatry 19(6):647-654.

Bruce ML, Hoff RA. 1994. Social and physical health risk factors for first-onset major depressive disorder in a community sample. Social Psychiatry and Psychiatric Epidemiology 29(4):165-171.

Burchardt T, Le Grand J, Piachaud D. 2002. Degrees of exclusion: Developing a dynamic, multidimensional measure. In: Hills J, Le Grand J, Piachaud D, editors. Understanding social exclusion. Oxford: Oxford University Press. p. 30-43.

Carroll LJ, Cassidy JD, Cote P. 2003. Factors associated with the onset of an episode of depressive symptoms in the general population. Journal of Clinical Epidemiology 56(7):651-658.

Cepeda ML, Allen FH, Cepeda NJ, Yang Y-M. 2000. Physical growth, sexual maturation, body image and sickle cell disease. Journal of the National Medical Association 92(1):10-14.

Chan J, Parmenter T, Stancliffe R. 2009. The impact of traumatic brain injury on the mental health outcomes of individuals and their family carers. AeJAMH (Australian e-Journal for the Advancement of Mental Health) 8(2):1-10.

Citrome, Yeomans J. 2005. Do guidelines for severe mental illness promote physical health and well-being? Psychopharmacol 19:102-109.

Claussen B. 1999. Alcohol disorders and re-employment in a 5-year follow-up of long-term unemployed. Addiction 94(1):133–138.

Cole MG. 2008. Brief interventions to prevent depression in older subjects: A systematic review of feasibility and effectiveness. The American Journal of Geriatric Psychiatry 16(6):435-443.

Cooper S-A, Smiley E, Morrison J, Williamson A, Allan L. 2007. Mental ill-health in adults with intellectual disabilities: prevalence and associated factors. British Journal of Psychiatry 190(1):27-35.

Costello EJ, Copeland W, Cowell A, Keeler G. 2007. Service costs of caring for adolescents with mental illness in a rural community, 1993-2000. American Journal of Psychiatry 164(1):36-42.

Cuijpers P, van Straten A, Smit F, Mihalopoulos C, Beekman A. 2008. Preventing the onset of depressive disorders: A meta-analytic review of psychological interventions. The American Journal of Psychiatry 165(10):1272-1280.

Dagnan D, Lindsay W. in press. People with mental health problems. In: Emerson E, Hatton C, Bromley J, Caine A, Gone R, Dickson K, editors. Clinical Psychology and People with Intellectual Disabilities. 2nd ed. Chichester: Wiley.

Disability Rights Commission. 2006. Equal Treatment: Closing the Gap A formal investigation into physical health inequalities experienced by people with learning disabilities and/or mental health problems. Stratford on Avon: DRC.

Elliott TR, Kennedy P. 2004. Treatment of Depression Following Spinal Cord Injury: An Evidence-Based Review. Rehabilitation Psychology 49(2):134-139.

Emerson E, Hatton C. 2007a. The contribution of socio-economic position to the health inequalities faced by children and adolescents with intellectual disabilities in Britain. American Journal of Mental Retardation 112:140-150.

Emerson E, Hatton C. 2007b. Mental health of children and adolescents with intellectual disabilities in Britain. British Journal of Psychiatry 191:493-499.

Emerson E, Honey A, Llewellyn G. 2008. The well-being and aspirations of Australian adolescents and young adults with a long-term health condition, disability or impairment. Canberra: Australian Research Alliance for Children and Youth.

Emerson E, Honey A, Madden R, Llewellyn G. 2009a. The well-being of Australian adolescents and young adults with self-reported long-term health conditions, impairments or disabilities: 2001 and 2006. Australian Journal of Social Issues 44(1):39-53.

Emerson E, Madden R, Robertson J, Graham H, Hatton C, Llewellyn G. 2009b. Intellectual and Physical Disability, Social Mobility, Social Inclusion and Health. Lancaster: Centre for Disability Research, Lancaster University.

Fagg J, Curtis S, Stansfeld SA, Congdon P. 2006. Psychological distress among adolescents, and its relationship to individual, family and area characteristics in East London. Social Science & Medicine 63(3):636-648.

Feldner MT, Zvolensky MJ, Schmidt NB. 2004. Prevention of anxiety psychopathology: A critical review of the empirical literature. Clinical Psychology: Science and Practice 11(4):405-424.

Fone D, Dunstan F, Williams G, Lloyd K, Palmer S. 2007. Places, people and mental health: A multilevel analysis of economic inactivity. Social Science & Medicine 64(3):633-645.

Freedenthal S. 2007. Racial disparities in mental health service use by adolescents who thought about or attempted suicide. Suicide and Life Threatening Behavior 37(1):22-34.

Friedli L. 2009. Mental health, resilience and inequalities. Copenhagen: World Health Organisation Europe.

Gallo LC, Matthews KA. 2003. Understanding the association between socioeconomic status and physical health: Do negative emotions play a role? Psychological Bulletin 129(1):10-51.

Gannon B, Nolan B. 2006. The dynamics of disability and social inclusion in Ireland. Dublin: The Economic and Social Research Institute.

Gladstone TR, Beardslee WR. 2009. The prevention of depression in children and adolescents: A review. The Canadian Journal of Psychiatry / La Revue canadienne de psychiatrie 54(4):212-221.

Gustafsson C, Ojehagen A, Hansson L, Sandlund M, Nystrom M, Glad J, Cruce G, Jonsson A-K, Fredriksson M. 2009. Effects of psychosocial interventions for people with intellectual disabilities and mental health problems: A survey of systematic reviews. Research on Social Work Practice 19(3):281-290.

Hemmings CP. 2008. Community services for people with intellectual disabilities and mental health problems. Current Opinion in Psychiatry 21(5):459-462.

Honey A, Emerson E, Llewellyn G. in press. The mental health of young people with disabilities: Impact of social conditions. Social Psychiatry and Psychiatric Epidemiology.

Jenkins S, Rigg J. 2004. Disability and disadvantage: Selection, onset and duration effects. Journal of Social Policy 33(3):479-501

Kariuki M, Honey A, Emerson E, Llewellyn G. in preparation. Mental health trajectories of young people after disability onset.

Klineberg E, Clark C, Bhui KS, Haines MM, Viner RM, Head J, Woodley-Jones D, Stansfeld SA. 2006. Social support, ethnicity and mental health in adolescents. Social Psychiatry and Psychiatric Epidemiology 41(9):755-760.

Kolaitis G. 2008. Young people with intellectual disabilities and mental health needs. Current Opinion in Psychiatry 21(5):469-473.

Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJL. 2006. Global burden of disease and risk factors. New York: Oxford University Press/World Bank.

Loveland D, Driscoll H, Boyle M. 2007. Enhancing supported employment services for individuals with a serious mental illness: A review of the literature. Journal of Vocational Rehabilitation 27(3):177-189.

Lucas RE. 2007. Long-term disability is associated with lasting changes in subjective well-being: Evidence from two nationally representative longitudinal studies. Journal of Personality and Social Psychology 92(4):717-730.

Luthar SS. 2003. Resilience and vulnerability: Adaptation in the context of childhood adversities. Cambridge: Cambridge University Press.

Malek-Ahmadi P, Hilsabeck RC. 2007. Neuropsychiatric complications of interferons: Classification, neurochemical bases, and management. Annals of Clinical Psychiatry 19(2):113-123.

Marmot M. 2005. Social determinants of health inequalities. Lancet 365:1099-1104.

McClish D, Penberthy L, Bovbjerg V, Roberts J, Aisiku I, Levenson J, Roseff SD, Smith WR. 2005. Health related quality of life in sickle cell patients: The PiSCES project. Health & Quality of Life Outcomes 3:50.

Miauton L, Narring F, Michaud PA. 2003. Chronic illness, life style and emotional health in adolescence: Results of a cross-sectional survey on the health of 15-20-year-olds in Switzerland. European Journal of Pediatrics 162(10):682-689.

Mont D. 2007. Measuring Disability Prevalence. Washington: World Bank.

Morrell S, Taylor R, Quine S, Kerr C, Western J. 1994. A cohort study of unemployment as a cause of psychological disturbance in Australian youth. Social Science & Medicine 38(11):1553-1564.

Mrazek PJ, Haggerty RJ, editors. 1994. Reducing risks for mental disorders: Frontiers for preventive intervention research. Washington, DC: National Academy Press.

Noll RB, Gartstein MA, Vannatta K, Correll J, Bukowski WM, Davies WH. 1999. Social, emotional, and behavioral functioning of children with cancer. Pediatrics 103:71-78.

Officer A, Groce NE. 2009. Key concepts in disability. The Lancet 374:1795-1796.

Perrin JM. 2002. Health services research for children with disabilities. Milbank Quarterly 80(2):303-324.

Perry MJ. 1996. The relationship between social class and mental disorder. Journal of Primary Prevention 17(1):17-30.

Piachaud D, Bennett F, Nazroo J, Popay J. 2009. Social Inclusion and Social Mobility London: Global Health Equity Group, UCL

Pollard C, Kennedy P. 2007. A longitudinal analysis of emotional impact, coping strategies and post-traumatic psychological growth following spinal cord injury: A 10-year review. British Journal of Health Psychology 12(3):347-362.

Prince M, Patel V, Saxena S, Maj M, Maselko J, Phillips MR, Rahman A. 2007. No health without mental health. Lancet 370:859-877.

Rethink. 2005. Running On Empty: Building Momentum to Improve Well-Being in Severe Mental Illness. London: Rethink.

Saunders P. 2006. The costs of disability and the incidence of poverty. Sydney: Social Policy Research Centre, University of NSW.

Sawyer MG, Arney FM, Baghurst PA, Clark JJ, Graetz BW, Kosky RJ, Nurcombe B, Patton GC, Prior MR, Raphael B, Rey J, Whaites LC, Zubrick SR. 2000. Mental health of young people in Australia: Child and adolescent component of the National Survey of Mental Health and Well-being. Canberra: Commonwealth Department of Health and Aged Care.

Sawyer S, Drew S, Yeo MS, Britto MT. 2007. Adolescents with a chronic condition: Challenges living, challenges treating. Lancet 369:1481–1489.

Seigel W, Golden N, Gough J, Lashley M, Sacker I. 1990. Depression, self-esteem, and life events in adolescents with chronic illness. Journal of Adolescent Health Care 11:501-504.

Smith DM, Langa KM, Kabeto MU, Ubel PA. 2005. Health, wealth, and happiness: Financial resources buffer subjective well-being after the onset of a disability. Psychological Science 16(9):663-666.

Stice E, Shaw H, Bohon C, Marti C, Rohde P. 2009. A meta-analytic review of depression prevention programs for children and adolescents: Factors that predict magnitude of intervention effects. Journal of Consulting and Clinical Psychology 77(3):486-503.

Strategic Review of Health Inequalities in England post-2010. 2010. Fair Society, Health Lives: The Marmot Review. London: The Marmot Review.

Thornicroft G. 2006. Actions Speak Louder than Words: tackling discrimination against people with mental illness. London: Mental Health Foundation.

Treharne GJ, Lyons AC, Booth DA, Kitas GD. 2007. Psychological well-being across 1 year with rheumatoid arthritis: Coping resources as buffers of perceived stress. British Journal of Health Psychology 12:323-345.

United Nations. 2006. United Nations Convention on the Rights of Persons with Disabilities. New York: United Nations.

Vitaro F, Tremblay RE. 2008. Clarifying and maximising the usefulness of targeted preventative interventions. In: Rutter M, Bishop D, Pine D, Scott S, Stevenson J, Taylor E, Thapar A, editors. Rutter's child and adolescent psychiatry. 5th ed. Oxford: Wiley-Blackwell. p. 989–1008.

Walker D, Gonzalez EW. 2007. Review of intervention studies on depression in persons with multiple sclerosis. Issues in Mental Health Nursing 28(5):511-531.

Webster-Stratton C, Taylor T. 2001. Nipping early risk factors in the bud: Preventing substance abuse, delinquency, and violence in adolescence through interventions targeted at young children (0-8 years). Prevention Science 2:165-192.

Wight RG, Botticello AL, Aneshensel CS. 2006. Socioeconomic context, social support, and adolescent mental health: A multilevel investigation. Journal of Youth and Adolescence 35(1):115-126.

Wilkinson RG. 2005. The impact of inequality. New York: The New Press.

Wolman C, Resnick MD, Harris LJ, Blum RW. 1994. Emotional well-being among adolescents with and without chronic conditions. Journal of Adolescent Health 15(3):199-204.

World Health Organisation. 2005. Mental health: Facing the challenges, building solutions: Report from the WHO European Ministerial Conference. Copenhagen: WHO Regional Office for Europe.

World Health Organisation. 2008. Closing the gap in a generation: Health equity through action on the social determinants of health. Final report of the Commission on Social Determinants of Health. Geneva: World Health Organization.

World Health Organization. 2001. International Classification of Functioning, Disability and Health. Geneva: WHO.

Yen C-F, Loh C-H, Lin J-D. 2009. Prevention of mental health problems in people with intellectual disability. Current Opinion in Psychiatry 22(5):447-451.