a note from David Dossetor...

Mental Health Problems: Disorders of Social Development caused by Maladaptation's of 'Theory of Mind'? A Developmental Psychiatry View.

Associate Professor David Dossetor,
Child Psychiatrist with a special interest in
Intellectual Disability and Autism,
Area Director for Mental Health,
The Children's Hospital at Westmead.

Introduction

This article describes a way of reconceptualising mental health disorders and illnesses, based on observations from working in children and intellectual disability and autism. It proposes that by approaches to understanding the way the mind develops in childhood, without detracting from current scientific knowledge, we can reframe adult mental health problems as maladaptive processes of the social development of the human brain, mind and spirit.

Measuring the modern mental health epidemic

Mental Disorders are the growing health epidemic of the modern world. Across the developing world as well as the developed, the burden of health is due more to conditions that cause disability than due to 'years of life lost' (measured in Disability Adjusted Life Years {DALYs}) (Gore et al, 2011). The top ten causes for those 10-24 years are: (% of DALYs accounted): 1. depression (8.2); 2. unintentional injuries (accidents) (5.4); 3. schizophrenia (4.1); 4. bipolar disorder (3.8); 5. violence (3.5); 6. alcohol use (3.0); 7. HIV/AIDS (3.0); 8. self-inflicted injury (2.8); 9. tuberculosis (2.6); 10. lower respiratory tract infections (2.6).

In Africa the top ten list includes for girls abortion (3.7) and maternal sepsis (2.7) and for boys aged 20-24 war (2.7)! Neuropsychiatric disorders are the main cause (45%) of years lost to disability in all countries. Unintentional injuries (eg RTAs) are second (12%), except in the Americas where it is self-injury and violence.

This list of health problems does not reflect the priority of focus of the health system. Of this list, the infectious diseases of HIV, tuberculosis and respiratory infections reflect the traditional activity of the health system and account for 8.1% of health burden. Depression, schizophrenia, bipolar disorder are considered mental health problems accounting for 16% of the burden of health, but accidents, violence, self inflicted injury and alcohol use which is the second biggest group (13.7%) are more likely to be seen as social problems. Public health considers prevention of accidents, and excessive alcohol use as recognised and considered in addiction medicine services; violence is dealt with by the justice system and self-injury by acute response services.

Different concepts of mental health and mental illness.

Currently the diagnostic and statistical manual for mental health disorders (DSM-IV) is undergoing a revision which illustrates that our definition of mental health disorders is evolving. Child mental health includes the above social disorders in their definition of psychiatric disorder: (ie any disorder of emotion or behaviour that causes addition handicap or impairment to self or carer) and is derived from an epidemiological approach to child wellbeing. Adult mental health has a more

strictly limited illness model, derived from its origins of studying mental disorder in asylums and emphasises the biological vulnerability of those who end up being unable to fend for themselves. One reason for the dominance of the adult definition is that mental health disorders are still stigmatised and substantially under funded compared with physical health services and mental health services which have to be highly restrictive in service provision. Ultimately in a capitalist system, it seems the cost to the economic efficiency of our society will become a primary driver for considering and redefining mental health disorders.

The developmental psychiatry of children and adolescents with and without intellectual disability contributes to the conceptual framework for understanding mental disorders. In childhood, poor peer relationships is the best single predictor of mental health problems as an adult. This is the measure of a school-aged person's ability to make new attachments to age related peers. Traditionally, the two main problems are those kids with internalising problems which make them too anxious to get close to others, and those with externalising problems where their antisocial skills lead other children to reject them. Extremes in both deviations have long term risk of adult mental health problems. It is evident that the establishment of maladaptive emotions or behaviour reflects or affects the adaptive skills necessary for the development of new age-related attachments. The emphasis on developing mental health services for youth may reflect the time of onset of the major mental health disorders, but the genesis of this burden of adult mental health problems is likely to be due to a failure to intervene in the extreme maladjustment in childhood (Ferguson, 2009).

The third childhood group is those who have the developmental delay problems

of Autism and/or intellectual disability which impairs the development of the skills for making peer relationships. In this framework, child mental health disorders can be divided into *General Disorders of Social Development* where the problems appear to be secondary to other emotional/behaviour problems and *Specific Disorders of Social Development* in which problems of social development are the result of problems of biological development. Indeed, the American committee developing the 5th Edition of the Diagnostic and Statistical Manual (DSM) is debating whether Specific Disorders of Social Development would be a more socially acceptable, if not more appropriate term for the Autistic Spectrum Disorders (Susan Swedo: personal communication).

Neurobiology versus emotional stress in mental illness

In the last decade, mental health research has focused on the biological vulnerability that underlies mental illness, with the dramatic growth of genetics, neurobiology, neuro-imaging and psychopharmacology. These are exciting developments towards our understanding of the human predicament, but the current emphasis on neurobiological research is at risk of neglecting the importance of relationships and the emotional environment. It is worth recalling that the genetic risk of schizophrenia is as great as that for tuberculosis. Indeed, genetic vulnerability plays a large part in a lot of physical health conditions, including tuberculosis. Although the tubercular microbacterium is readily identifiable, and genetics influences vulnerability, a number of environmental factors also influence outcome, such as nutrition and housing. In schizophrenia there are methodological limitations to the reliability of identifying and intervening in the quality of relationships and other emotional stresses (Dossetor, 2011). Nonetheless these factors are central to understanding mental health and illness. For example, although schizophrenia has a similar incidence in all cultures, the recovery and relapse rate is predicted by the quality of relationship with the next of kin. The rates of recovery in rural India are better that those in urban India which are in turn better than the urban developed world and reflect the quality of relationship or rates of 'high expressed emotion' in the next of kin (Bhugra & McKenzie, 2003). The influence of 'expressed emotion' on outcome is greater than the effect of medication. Research has shown that the presence of 'expressed emotion' has a similar detrimental influence on the progress of all mental health disorders (Hooley, 2007).

Autism and Schizophrenia

Autism used to be called childhood schizophrenia, until the age difference of the course autism and schizophrenia were described by Kolvin (1971). However, the debate on how often schizophrenia occurs in autism has highlighted how similar they are phenomenologically and the lack of a reliable discrimination. They both have thought disorder (delusions) and they both have problems identifying influence as coming from inside their mind versus outside their mind (hallucinations). They also both lack emotional recognition. These features are present from early childhood in autism whereas in schizophrenia they are of later onset (Starling & Dossetor, 2009). The genetics research shows significant overlap of the genetic risk and neurobiological research indicates similarities of under-connectivity of the "social brain": superior temporal sulcus, amygdala, orbital frontal cortex and fusiform gyrus (Pelphrey et al, 2011). Both patient populations have very low self esteem and they both lack a capacity to see things from someone else's perspective (insight). They are fundamentally disconnected in their sense of otherness which is the fundamental quality of 'theory of mind'. Increasingly, schizophrenia is described as a developmental disorder, and the main early predictor is problems of social relationships, indicative of a predisposition of problems of social reciprocity.

Theory of Mind and human connectedness

Theory of mind is the ability to attribute mental states: beliefs, intents, desires, pretending, knowledge, to oneself and others and to understand that others have beliefs, desires and intentions that are different from one's own. Theory of mind can be seen as the quality that is central to being human and part of cognitive development and related to skills of empathy. Theory of mind is a theory insofar as the mind is not directly observable (Baron Cohen, 1991). The philosophical and scientific assumption is that others have a mind which is intuitively attributed through the awareness of one's own mind. However, it is experimentally testable as demonstrated in the development of 3 year old skills of appreciating false belief in another (eg tested by Sally's Marbles paradigm) and leads on to the ability to attribute knowledge and mental states to others. An infant's understanding of attention in others is a social skill found as early as 7 to 9 months of age, and is necessary for joint attention which is a "critical precursor" to the development of theory of mind (Baron-Cohen, 1991). Such "proto-declarative pointing" to appreciate

the directed attention and interests of another, imitative experience and understanding of others' intentions may be the underlying motive behind all human communication but develops in complexity over many years with social and other experience.

It is the development of theory of mind that is specifically delayed in development in autism and as described above is lost in acute schizophrenia. The development of theory of mind has also been recognised in traditional literature as the development of the human spirit, which is prized as the essential quality of humanhood (Watts, 2011). Thus the development of theory of mind, the sense of otherness in normal childhood development, which correlates with a capacity for social reciprocity and skills to play with another, is seen in the years between 18 and 36 months. It is the start of the skills of shared thinking and imagination. In this developmental stage, the focus of mental interest and energy shifts from a preoccupation with primary processing of sensory stimuli to a dominance of awareness of the internal world of the mind and imagination in relation to a social and relationship world. The related skills in social attribution, second and third order theory of mind, which leads on to the skills of collaboration versus the competition of bluff and counterbluff, are further studied in the skills of social intelligence and game theory. These are the attempts to measure the cognitive skills which underlie educational, economic, social and cultural development. Game theorists describe community leaders working in sixth order theory of mind (Hargrieves Heap & Varoufakis, 1995).

Maladaptation of theory of mind and mental health problems

Research into cognitive ecology adds to this picture. In this context, people with anxiety and depressive disorders have maladaptive thinking processes which perpetuate their mental disorder and associated social impairment. Such measurement and desciption can also be seen as maladaptions of the development of the theory of mind and understanding of human social connectedness. Cognitive Behaviour Therapy enables the patient to use scientific method to challenge these maladaptive assumptions of mind. Bipolar Disorder also has acute loss of emotional recognition in the same way is described in schizophrenia. Accordingly, maladaptations of theory of mind provide a unifying concept that underlies all mental health problems. They all have common elements of stress impacting via the social brain. They represent problems of our

understanding of otherness and connectedness with other people.

The social power of professional healers

Cross cultural studies of mental health healing, despite large disparities of approaches and allocated clinical consultation time in the different cultures of China versus Canada, show similar sorts of outcome (Kirkmayer, 2006). One significant therapeutic contribution is the validation of the sick and disabled role for the mentally unwell patient in their family and social context. This enlists a change of social status requiring emotional and practical support during their period of recovery and possibly extended convalescence. This change of role no doubt has an effect on the quality of relationships and even impacts on the 'expressed emotion' of the next of kin. The Fort Bragg Studies of child mental health services showed something similar. Child mental health services have a huge effect on diminishing mental health symptomatology, but the academically prestigious service was not significantly better that the standard community based service. Further, most of these childhood mental health disorders continued to improve over a 9 month period (Bickman, 2000). On standard measures, their scores of social and emotional dysfunction regressed towards the mean. This may suggest that even in issues of mental health, with support, children become more adaptive and become more like the mainstream population.

Part of the role of the therapist is to use his healer/doctor authority to shift a family's approach through a medical understanding of the mental disorder. This involves validating the illness process, maladaptive emotional stress and damage to their theory of mind, which in turn affects their functional connectedness especially with their primary relationships. The patient receives a sick role, and attention given to stress factors which thereby enables supportive recovery processes to these mental emotional deviancies, often with the aid of medications to lower one or other of the arousal systems. This in turn allows a complex supportive social recovery process leading to the recovery of their theory of mind, sense of otherness and social connectedness whereby they can resume their social roles. For mental disorders, these processes often take months and sometimes years, especially for the severe mental illnesses, whereas the social expectation of physical illnesses is that they are generally recover in days to weeks.

Development and health of the mind: biology and environment

It is the study of the delay in the development of the mind as seen in those with Autistic Spectrum Disorders and Intellectual Disability that provides the opportunity for scientifically understanding the developmental sequences and developmental nature of the growth of the human mind and our social connectedness.

We all too readily assume that it is a fundamental quality of being human to have a spirit. While that potential may be part of being human, clearly its development can be delayed, or harmed at different stages in life. The studies in the infant show how awareness of the infant's own feelings and theory of mind only develop by the matching and reinforcing of behaviour and moods by a caring parent (Sleed & Fonagy, 2010). That is to say, by identifying and matching mental states in a sympathetic parent/carer a child develops awareness of their own mind.

The importance of early childhood environment is well established for mental health disorders. For example, the empirical evidence shows the best prevention of mental health problems in children and young adults is dependent on improving the quality of parenting for both emotional and disruptive behaviour problems. There is a growing area of research describing how a lack of emotional attunement seen in disordered parenting and attachment disorders distorts the process of emotional recognition and response. This is thought to be the mechanism behind what is called a lack in 'mentalisation skills' described in some disturbed and poorly functioning personality disordered teenagers. Accordingly, lack of early parent-child attunement leads to a young person developing long standing problems of relationships and emotional/behavioral regulation through a disordered theory of mind. Developing therapeutic skills to help these young people whose early experience has damaged their social and emotional potential is a worthy challenge (Bateman & Fonagy, 2008).

The measurement of social connectedness and understanding in adulthood is deemed part of social and economic science and as such is complex and disputed. However, growing evidence on the social environment of schools indicates that it has a major impact on the mental health and wellbeing of their students both through the development of intellectual skills and their social and emotional literacy. There is also growing appreciation on the influence of the culture of peer relationships and its influence on mental

health, this includes school features that enable a sense of belonging and protection from bullying.

The idea of environmental impact on the wellbeing of theory of mind makes some sense of why a range of broader measures such as unemployment, housing, and social capital have a big impact on a community's mental health. Relative inequity in the western world is becoming a primary driver of the mental health and social problem epidemic. Wilkinson and Pickett (2006) ascribe this growing issue to the problems of human trust in less equitable societies that affects both the rich and the poor.

Conclusion

In writing this article, I do not want to diminish the importance of medical and psychological research to help understand and help mental disorders and illnesses. Indeed as the world is becoming a more competitive and economically disparate place, skills to treat and prevent mental breakdown and build resilience, for example as measured by community rates of personal flourishment (Seligman, 2011), become more important. With the growing emphasis on "positive psychology" the approaches for preventing and treating mental health problems have increasing overlaps of teaching skills of personal cognitive, emotional and social understanding and effectiveness. Our own research on teaching emotional literacy skills through a specialised program for ASD finds developing emotion and social skills leads to improved social communication and relationships and improved mental health (Ratcliffe et al, 2012).

The developmental qualities of the mind and the ways the mind's capacities are damaged under stress and recover with therapeutic process is insufficiently appreciated in specialist mental health services. Recognising a societal communality of mind can support ethical and humane approaches to both mental illness and mental health.

The importance of a unifying concept of mental health and ill health is to make all responsible adults in our society and, especially parents and others that work with children, more aware of how they can contribute to the prevention, promotion and treatment of other's mental health. The promotion of mental health, the prevention of mental health problems and the treatment and recovery of social and mental health problems are all affected by relationships and other stresses and can be helped by supporting the recovery and growth of the skills of the human spirit
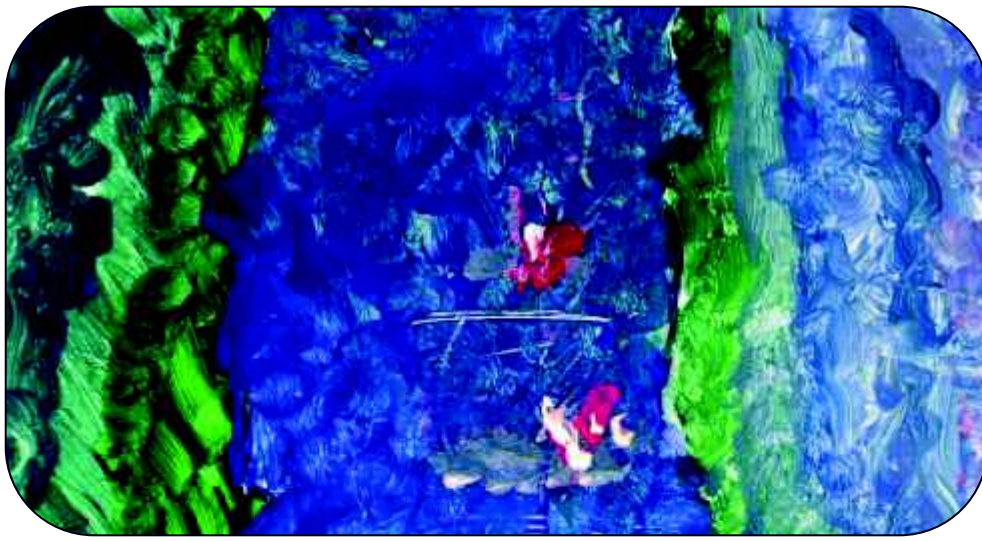
and our sense of connectedness in all its manifestations. This will apply to struggling with obesity in a youngster, the anxiety and tantrums in a young person with Autistic Spectrum Disorder, the disruptive or self injurious behaviour in a teenager, the violence and substance abuse of a homeless young adult, or the recovery process of someone who has become alienated by schizophrenia.

The priority of mental health services may be to deal with those acutely affected by psychosis, or who need protection because of a loss of their ability to keep themselves safe. However as a society we all share responsibility for caring for the disaffected, alienated and dispossessed and how our society attempts to support or obstruct their re-integration. The development of such a linking concept is part of the empowering process of the modern world: understanding the way we are all connected. In Australia there has long been a call to have a ministry of children, so that both state and federal governments consider the impact of all policies to the future of wellbeing of children and our future population. They don't vote, they are vulnerable to the behaviour of adults and societal change and on many measures are doing progressively less well, despite our times of affluence (Stanley et al, 2005). Promoting their wellbeing is critical to the future of this country. If we are to take seriously the future mental wellbeing and therefore health of our population, the political leadership of the country also needs to put similar processes in place for all those with chronically disabling conditions including mental health. Such a framework helps us understand the links of healthy lifestyles and health giving society to improve mental health, as recently established in a new ministry by the NSW government. Can such good intentions complemented with the building of adequate specialised mental health services change the course of the epidemic of mental health and social problems in Australia? ●

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