

Inquiry into the economic impacts of mental ill-health

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Chair (29 years), the Mental Health Service Achievement Awards program, of the Mental Health Services Conference of Australia and New Zealand, (now TheMHS Learning Network) reviewing innovation across the two countries with governments financial support.

Introduction

I welcome this inquiry, as it provides an opportunity to provide advice separate from the usual vested interests. Services are shaped by the funding methodology and you get exactly what you pay for, and I will discuss this below. However, will also go into some detail about the emerging importance of the effects of developmental trauma, as this is a major driver of psychological and physical disorders, causing high personal, social and economic pain. It has been said by Prof Derrick Silove that if we can effectively prevent and treat developmental trauma, it would be the greatest public health initiative of all time! I believe we are on the threshold of achieving that dream for at least our population.

Funding Methodology

You get exactly what you pay for, the delivery vehicles being as important as the interventions.

I initiated a round table process with PricewaterhouseCoopers, the Australian Health and Hospitals Association and my colleague Prof Alan Rosen, which produced the attached report, Mental Health Funding Methodologies.

The Paper concluded that current fee for service systems are not able to ensure quality and that the best way to provide funding would be through commissioning with clear evidence based models of care. This means both the interventions to be provided and the delivery vehicles, as both are important. There should be fidelity tools and assessments of fidelity to continue funding, while still allowing for innovation.

I sit on the Independent Hospitals Funding Authority Mental Health Working Group as they try to fit mental health services into activity based funding. I do not think this is the solution, as it is based on costing current underfunded and undefined models of care in the state health systems (costing history, not best practice). It does not really provide the incentives for quality care in a system that should be community based with admissions when necessary, compared to what is currently a hospital based system with some community satellites that are severely underfunded to do the job.

I spent 6.5 years as the Director of Mental Health for Western Sydney Area Health Service (1.2m pop) and Nepean Blue Mountains and Western Sydney Local Health Districts after the split, so I was responsible for services to one eighteenth of the Australian population at the time. Throughout this period there was rampant diversion of the mental health budget away from community based mental health (and drug and alcohol services), to meet the needs for acute medicine/surgery and I had to leave due to refusing to sign off on the budget. It has been estimated that around 20% of the NSW mental health budget was being diverted and I believe it is still happening, including in other states.

With Australia having the worst fiscal imbalance of any federation in the world (Twomey & Withers Federalist Paper 2007), it is not surprising that the states behave the way they do. COAG Health Ministers commissioned NSW to develop the National Mental Health Service Planning Framework and spent \$2.5M developing it up to Oct 2013, as a spreadsheet based on 40 experts designing the services required for a population, both community and hospital, and costing them. When it was realised that about another \$2.5B would be required for community based services, the Commonwealth ensured the Framework was put under lock and key and has not been allowed to see the public light of day (I have tried FOI).

Because of our problematic Westminster system of public service secrecy, which means the public have no idea about service investment proposals until they are announced by the Minister, and then cannot be changed, and the fact that the Commonwealth public servants, giving the advice, are frequently rotating and mental health knowledge free, means that almost every proposal is flawed. We lobbied for and were successful in establishing, state and federal mental health commissions, with the hope that they would be knowledge managers, developing proposals based on evidence and through thorough consultation across the sector. Thus proposals to government would have maximal sector consensus, reducing political risk, but still giving government wriggle room over implementation. However, nearly all of the commissions have been too tied to the public service and government, with no mechanisms to ensure that the right initiatives are funded and that the money is spent as intended.

I helped the Western Australian Liberal Government to decide that their Commission would have sufficient separation from government to do the above functions and to hold the budget for all mental health services in WA. They have been able to ensure that their state hospital system has specific contracts for service provision and are not able to divert the funds. They directly commission community based services and have achieved the highest rate of growth in mental health funding, I am sure because there is trust that the money will be well spent.

While the Commonwealth has moved to population based commissioning, through the Primary Health Networks, this has been a very mixed blessing for mental health. Mental health services are the most complex, requiring a lot of knowledge and managerial experience, so there have been knowledge gaps leading to poor decisions by some PHNs. Effective commissioning requires lived experience in managing complex mental health clinical and support services, and good knowledge of emerging improvements in interventions and delivery vehicles. Also, the contracting process has been a shambles, with short term annual, or shorter, contracts causing instability for staff and difficulties with recruitment, so that mostly inexperienced junior staff are employed, who have to be trained on the job and then leave for higher pay and conditions in the state system. This has affected outcomes and the ability to meet KPIs and fidelity to the evidence based models. New models can need years to implement and mature.

Recruiting senior medical staff for PHN contracted clinical services has been extremely difficult, as the market has moved to Visiting Medical Officer or Locum rates in places like Western Sydney, where even the LHDs have high vacancy rates (40% in SWSLHD) and have to pay around \$2,000 per day. Currently commissioned clinical services are not given budgets to meet the market, there being an assumption that they should pay less and have poorer conditions than the state health systems they compete with. There have also been no inflation increments for 4 years, while state health salaries have gone up by 2.5% per year in NSW. The result is instability, difficulties meeting fidelity and activity KPIs as the program has to shrink, but KPI requirements remain the same. This is not sensible funding methodology, as much as Treasury likes it, to create new pools of funding for the politicians to play with.

While senior public servants hate the allocation of money into specific purpose pots, preferring pooling that enables diversion of funds, Australia really needs mechanisms to protect the mental health funding. Everywhere I have been, looking at services around the world, services have suffered from diversions unless they are separate organisations, like the Foundation Mental Health Trusts in the UK, or there is strict budget holding and contracting, as in WA.

I believe that your report should propose that the National Mental Health Commission become a statutory authority that can hold any and all national mental health funding, including Medicare, and have the powers to commission and police mental health service delivery. This should include any Commonwealth funds going to the state governments.

There is plenty of evidence that mental health services do not get a fair share of the health budget, and what they do get is very poorly distributed. I obtained 5 year's worth of Medicare mental health items data and when analysed it showed that the most wealthy electorates received the most Medicare rebate and the poorest the least. If the pool of Medicare funding for mental health was given to the National Mental Health Commission, it could progressively move towards better payment models, without the fighting including the surgeons etc. What is needed is bundling that rewards integration with primary health, secondary mental health and with incentives to minimise expensive hospital care. There is plenty of evidence that it is impossible to ensure quality with fee for service independent clinicians – just passing a degree exam does not mean the person is competent, and what happens is that clinicians just do what they like doing behind closed doors and we have to hope that the placebo effect is sufficient (Institute of Medicine Quality Chasm Series 2006).

There is also plenty of evidence that effective expenditure of further funds, such as on treating developmental trauma, would create major savings across the whole of government services. It will take some years to implement, but improvements will not come without targeted investment, which is unlikely in the state systems with their health budget pressures.

Developmental Trauma

With my involvement with STARTTS since its inception 30 years ago, I know that we have provided training on the treatment of all types of trauma through a wide range of interventions. It is now good that services are wanting to implement trauma informed care, but this is not actually treating trauma. We have found that even with training, clinicians mostly do not implement their training, due to a lack of support to prevent vicarious trauma from hearing trauma stories and being allowed the time required (Medicare no help). Most environments are not sufficiently supportive. Also STARTTS found a significant proportion of their clients did not respond sufficiently to the current mainstream interventions and so became interested in neurophysiology and the emerging field of

quantitative electroencephalography (QEEG) and neurofeedback. They have had excellent results and have reached the stage where they can share their expertise through the opening of a training institute this year. Currently refugees get more effective care than the general traumatised population, and this needs to change as soon as possible. The neurologists have resisted the recording of QEEGs, by having a clause in the Medicare rebate specifically saying it is not payable for recording for the purposes of neurofeedback (or neuromodulation)

The key recent learning is that trauma in childhood (emotional, violent, sexual abuse; emotional and physical neglect; failures of parental attachment and poverty) causes plastic brain changes that are evolutionary protective mechanisms, that enable survival in a toxic environment until reaching puberty and the ability to produce the next generation (see attached review paper by Teicher and Samson, a bit technical for this Inquiry, but the evidence is there). However, these changes are not appropriate for the next phase of development in adolescence and youth, and the brain remains dysregulated, the major cause of psychological and physical disorders, as shown by long term prospective studies of development (eg The Dunedin Study cohort, thoroughly assessed at age 3 and now reaching the age 46 with 96% follow up rate). Childhood trauma has a dose related affect, with the more types of trauma experienced, the more frequent the trauma and the more severe the level of trauma, the more the brain is dysregulated.

The Adverse Childhood Experiences (ACE) study in California concluded that child maltreatment was the most costly public health issue in the United States (Centers for Disease Control and Prevention), calculating that the overall costs exceeded those of cancer or heart disease, and that eradicating child abuse in America would reduce the overall rate of depression by more than half, alcoholism by two-thirds, and suicide, serious drug abuse, and domestic violence by three quarters. It would also have a significantly positive effect on workplace performance, and vastly decrease the need for incarceration.

Due to being a self report questionnaire, the ACE study does not fully include the effects of parental emotional abuse, neglect and failures of infant attachment, yet these cause low self-esteem, depression and difficulties with relationships. Some important types of trauma are under-reported, as much trauma (emotional and physical neglect, poverty, emotional abuse) can occur while in the uterus (due to a traumatised mother passing it on to the next generation) and immediately after birth. A child does not develop language and consciously accessible memories until later, so no language based memory of trauma is recorded and so it cannot be recalled in language terms to provide a history.

If a person scores 4 types of trauma, it is very significant (about 17% or more of the population) and if 6 or more, then life expectancy is reduced by 20 years (? Aboriginal Community). The brain controls everything and so bio-rhythms, hormones, immunity systems and other essential processes are also dysregulated. There is mounting evidence that developmental trauma has been ignored in most mental health research into symptom cluster disorders (DSM-5), by not looking for it, assessing it, or controlling for it, yet it makes a huge difference in outcomes, no matter what other diagnosis is given. When developmental trauma is controlled for, it is revealed that the major cause of symptoms and level of severity is the trauma. For example, a review of 29 adult secondary mental health services that screened for PTSD (only a sub-set of trauma responses) found on average a median positive result of 33.3% (Zammit et al 2018). With a diagnosis of substance abuse disorder, it was 36%, psychosis 31%, affective disorder 39% and a with a mixture of disorders, 30%, yet the diagnosis of PTSD was only recorded in 2.3% of the case notes. This confounds all the research on medication efficacy, and medication will not cure the effects of trauma. Thus most cases were not detected and treated, and we can speculate that clinicians do not want to hear trauma stories and do not know how to treat developmental trauma.

The key breakthrough is the discovery that we can assess the functioning of the brain through functional MRIs (very expensive) and quantitative electroencephalography (QEEG), which is relatively cheap, and use the information to guide neurofeedback to re-regulate the brain. QEEGs can also look beneath the surface of symptom clusters, to what is happening in the brain, and provide advice on medication choice, effectiveness, compatibility and thus personalised medicine (Gunkelman 2014). Neurofeedback is a way to give positive rewards for achieving changes in brain activity that lead to regulation. The brain finds its own solutions and the training effect is usually permanent (like learning to ride a bicycle). I have observed the dramatic changes in clients of STARTTS, who failed to sufficiently improve with standard psychological therapies, but after QEEG guided neurofeedback, were able to become functional and progress.

As an example, a clinical case study of QEEG guided neurofeedback for 47 outpatients with chronic schizophrenia, most of whom had not improved with medications (Surmeli et al 2012), followed up for around 2 years, resulted in 19 no longer qualifying for a diagnosis of schizophrenia, 27 did not need medication, and the remainder had, on average, halved their medication dose. This trial did not take into account the enduring effects of developmental trauma (Teicher & Samson 2016) and they did not screen for it, however because they were using QEEG, they treated hyper and hypo arousal, the effects of trauma. The improvements in symptoms and functioning were about 4 times better than the level of evidence used to accept medications as evidence based! I find that over 60% of our young people with first episode psychosis have evidence of significant developmental trauma, with a dose related effect on psychotic symptoms (which should respond to neurofeedback). Other trials have also had positive results for this most expensive and disabling of mental health disorders.

People who achieve suicide have been found to have developmental trauma. A lot of money is now being spent on trying to prevent suicide, but that usually does not include actually effectively treating the effects trauma. In spite of increased expenditure, the rates of youth suicide have been going up. If new funds cannot be found, some of that money should be diverted to programs developing effective treatments.

As I am short on time to fully address the issues just for this inquiry, I have attached a recent proposal I wrote for a specialist treatment service for developmental trauma which makes the case and how we can address it. This proposal is fully costed and sitting on the shelf for implementation (also see attached costing documents).

Recommendations

1. Give mental health funding the same level of priority given to cancer or cardiovascular disease, with community based control of integrated systems. As so much mental health disorder begins in childhood, adolescence and youth, increased spending for these age groups is truly an investment, not a cost, compared to the 80% of spending in the last 2 years of life.
2. Move to a full funder provider split and make the National Mental Health Commission a statutory authority, holding all the Commonwealth mental health funds, to enable improvements in funding methodology and with the powers to provide assurance that funds voted for mental health are spent on mental health.
3. Support attention to developmental trauma, the hidden cause of so much personal, social and economic pain, and the further development of effective treatments. Pilot services with critical mass are needed, as waiting for haphazard academic processes to provide solutions and small scale incremental funding will not provide sufficient momentum, will waste a lot of time and money and continue the preventable pain.

Attachments:

Mental Health Funding Methodology
Developmental Trauma Service Proposal
Developmental Trauma Service Investment Estimate
Developmental Trauma Service Facility Requirements
Developmental Trauma Service Proposal Fit-out Estimate

References:

Gunkelman J (2014) Medication Prediction with Electroencephalography Phenotypes and Biomarkers. *Biofeedback*, 42:2, pp. 68–73 DOI: 10.5298/1081-5937-42.2.03

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Surmeli T, Ertem A, Eralp E, Kos IH, (2012) Schizophrenia and the Efficacy of qEEG-Guided Neurofeedback Treatment: A Clinical Case Series. *Clinical EEG and Neurosciences* 43:2 133-144

Zammit S, Lewis C, Dawson S, Colley H, McCann H, Piekarski A, Rockliff H, Bisson J (2018) Undetected post-traumatic stress disorder in secondary-care mental health services: systematic review. *BJPsych* 212, 11-18