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Editorial: Should child psychiatry be more like paediatric oncology?

Psychiatric disorders are the leading cause of disability worldwide and a substantial cause of morbidity. Looked at from a public health perspective, they are devastating and cost humanity a tremendous amount of suffering as well as resources. Mental illness is particularly costly for the young, where depression is the leading cause of morbidity and where mental illness (suicide and many of the deaths by accident) are the major causes of death.

Childhood cancer is relatively rare and on a large scale, causes much less mortality and morbidity. Yet, when it comes to anything from public perception, to funding or to hyperbolic tabloid headlines, oncology wins hands down. Children with cancer are also better off when it comes to the quality of services and respect patients get from the health care system, treaters, and their own families. Importantly, treatments for acute lymphoblastic leukaemia now lead to remarkable, up to 90% cure rates, something unimaginable only a few years ago (Hunger & Mullighan, 2015).* These phenomena have been puzzling the authors of this article—a haemato-oncologist and a psychiatrist married to each other—for a while and below is an attempt at understanding the possible issues behind them and how they may be remedied.

Time scales of disease evolution

Cancer is usually identified suddenly out of a state of relative health. In some cancers the course of the disease is just a few weeks of symptoms until discovery by diagnosis or death; no leukaemia starts with symptoms in early childhood, becomes more intense in adolescence, and culminates in a diagnosis in early adulthood.* Yet, that is the course of most psychiatric disorders. About 70% of young adults with a psychiatric disorder have had at least substantial symptoms if not a disorder already by their teenage years. Think of a depressed 20-year-old who had ADHD as a child and his first symptoms of depression after having been bullied upon entering secondary school. In a way, cancer grows in people, whereas people often grow along with their mental illness. This chronicity affects not only the sense of urgency of patients, but also of their relatives and the system: 'he's always been like this' is a frequent mantra and a get out clause for doing little or nothing to change things.

Remedy: Time scales of evolution should not determine speed of action. Early detection and intervention is likely to lead to better outcomes and ought to be the topic of intense research and funding.

Time scales and type of outcomes

Untreated cancer leads to death sooner or later. Psychiatric illness can lead to multiple hospitalisations, social isolation, occupational withdrawal, and reduced life expectancy due to suicide and lifestyle choices, but the threat of death remains a rather remote prospect. Suicide is relatively rare, therefore harder to predict. The patients on an oncology ward are battling with death every day and many of them die during the care they receive: an oncologist is acquainted with death, a psychiatrist much more rarely so. Again, the result in mental health is a less focused approach on what ought to be achieved and when.

Remedy: Educate the public about the devastating effects of mental illness. Put statistics simply: four times more youth aged 15–24 die in the United States by suicide than by malignant neoplasms (Center of Disease Control).

Treatment success

In cancer there is a clear-cut cure. Think of the surgical resection of a localised carcinoma or the successful treatment of acute myeloid leukaemia with a stem cell transplant. Of course, there is recurrence in cancer—and therefore ostensible cure—but returning to regular life after a dreadful cancer that could kill you very quickly is one of the marvels of modern oncology. The most convincing example of this is chronic myeloid leukaemia (CML) where a single tablet taken daily enables the majority of patients to return to a normal life. This sort of recovery is comparatively rare in psychiatry and even more rarely advertised.

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Lithium's salutary effects on the lives of patients with mania are rarely talked about, and what patients often experience (and the public often hears) is the little incremental benefit or the nonresponse of antidepressant treatment or the side effects of antipsychotics.

Remedy: This is partly about advertising the great benefits that psychiatric treatment can bring, but also about simply doing more—much more—treatment research in psychiatry.

Blame, empathy, responsibility

Think about a 4-year-old boy with leukaemia, blood cancer, who has lost all his hair due to chemotherapy, sitting up in bed surrounded by drips, being assisted by an oxygen mask. Or think of that young man with a large scar on the side of his head, the sign of a recently resected brain tumour. These are the images that charities use to ask for our money. They are heart-wrecking and evoke deep sympathy for the affected and a sense of injustice—the suffering is undeserved. Contrast this to the child with ADHD and mood dysregulation who has prolonged and violent temper outbursts and who has just been thrown out of school; or the young girl who has stopped going to school since her depression and social phobia worsened. Never mind the data about how devastating these conditions are, the feelings they evoke even in the most enlightened people hardly compare to those associated with the devastation of cancer. Moreover, the attribution of responsibility is different. No one could blame the child with leukaemia or the young man with brain tumour for their condition; yet, many would the other two.

Remedy: This too is a public education matter, though the prejudice against mental illness may have been once-adaptative and, therefore, hard-to-shake, evolutionary origins.

Sense of identity and agency

But it is not only the public that distinguishes in such a way between mental and physical illness. Psychiatric patients have a different sense of autonomy to that of cancer patients. You will rarely find an oncological patient saying: this tumour is part of me, or my illness says something about me, and there is no coercive cancer treatment. By contrast, psychiatry operates at the limits of human volition: but my [enter any of: anxiety, low mood, mania] is a part of me. Who has not treated a depressed patient who says: why do you want to change me, this is who I am; it is just because I see how really futile all is in life. This difference has profound implications about the nature of the doctor-patient relationship, the speed and success of treatment, not to mention compliance. It also raises issues about psychiatry's illness constructs or at least their perception. Oncological patients do not dispute the very concept of cancer, whilst many patients object to being labelled as mentally ill. Importantly psychiatric symptoms are increasingly viewed as part of dimensions and the boundaries have probably become much more elastic than in Jasper's times. The worried well are part of such spectra or people who would rather identify as neuro-diverse than ill; this is hardly the case in cancer where categories are pretty clear cut.

Remedy: There is no obvious remedy to this, nor should there necessarily be.

Different molecular structure

The cancers where most progress in understanding has been made have been relatively simple ones. CML was the prototype: every patient acquires a single chromosomal translocation giving rise to an aberrant tyrosine kinase which causes the malignant transformation. And yet despite identifying the cause, it took nearly 30 years from the discovery of the translocation to the first randomized trial of imatinib—the tyrosine kinase inhibitor which treats it—in patients. By contrast, it is common variants, each of a very small effect size that seem to give rise to, say, depression. Even in acute myeloid leukaemia (AML), the closest that haematology comes to psychiatry in terms of complexity, molecular markers now guide treatment choice, even if prognosis is still grim. This gives hope to patients and a sense of clarity and rational process to the treating doctors.

Remedy: the structure is, of course, inherent, but the bold approach to research should be common across disciplines, as should the hope. It also serves as a reminder that discovery can be long and painful.

The tissue issue

It is obvious that a lot of progress in oncology owes to the fact that pathologists have access to the tissue of interest, be it blood, gut, or kidney. That is not the case for psychiatry where a pathological substrate remains fairly elusive still and where access to the brain at the time of illness is unethical.

Remedy: The United Kingdom is leading the world with its brain bank and that should have important implications for discovery. This is obviously trickier to do with children and adolescents, but well within the realm of possible. Progress in MRI has been pivotal in monitoring disease and treatment progress in multiple sclerosis. Functional imaging may eventually do the same in psychiatry, but its potential has yet to be realized clinically.

Different doctors

Psychiatry, for obvious reasons, tends to attract those curious about the psyche. As a result, there is a lot of soul searching, sometimes of one's own soul and its place in the world. That type of subtle

thinking and feeling can be a great asset in psychiatry; it can also get in the way sometimes. Anyone who has moved to psychiatry from medicine is astonished by the frequency and length of meetings that professionals have between themselves, with other agencies, and occasionally the patients and their relatives. A common outcome of such meetings is the decision to have yet more meetings. This adds to the young patients' and relatives' sense—very different to what one experiences in oncology—that things simply do not move in psychiatry.

Remedy: Medicine and psychiatry in particular would be enriched by attracting more people with an engineer mindset—think, measure, and try to solve the problem one part at a time. This may call for a shake-up of the current medical study system and its heavy emphasis on knowledge of readily available solutions, rather than the fostering of discovery. It also calls for psychiatrists to engage with medical students (in the United States, undergraduates) early on—and inspire them by their example and ability to discover.

Everyone in a trial (or at least at a specialist centre)

It is very rare these days for any child with leukaemia to be treated outside a trial or at least a specialist centre. For good reason, outcomes have, certainly during the early years of pediatric cancer studies (Stiller & Draper, 1989), been better in trials than outside for the same treatment provided.* Hardly any child is in a trial in psychiatry. Everyone has their outcomes measured closely and systematically in oncology by knowledgeable specialists, it is a struggle to get mental health practitioners to collect a simple questionnaire and often such practitioners tend to be generalists, rather than have a specialism. Psychiatric practitioners will often—quite appropriately—venture outside guidelines and evidence-based treatments because of the complexities of the clinical pictures they encounter. Yet, this is rarely done in a principled and documented way and, therefore, we miss the chance of conducting series of precious $n = 1$ trials. A lot of the progress in haematology came about by drug trials of the type A before B versus B before A. This would be the child psychiatry equivalent of, say staged care for depression, or augment an existing SRI versus change before augmenting etc. Depression is the leading burden of disease in adolescents, yet we only have a handful of well-conducted trials to draw upon. It is mind-blowing that in the United Kingdom and elsewhere many children with chronic and treatment-resistant depression are treated (or not) by GPs or low tier CAMHS, who simply lack the expertise to deal with this condition.

Remedy: this is perhaps the most fixable of all problems. It just takes knowledge and determination on the part of policy makers to do what is done in child haematology or cardiology. Decide which disorders (or what severity of disorder) ought to be treated by specialists who track and document outcome, and ideally randomize. It will be a steep curve initially but one worth climbing.

Last but not least

If there is one thing that we learnt from cancer treatment is the importance of vision and persistence through adversity and criticism. In 1957 the Texan E. Donnall Thomas came up with the then incredible idea of infusing bone marrow into people with cancer whom he had treated with high-dose radiation and chemotherapy (Pincock, 2012). He was heavily criticised, and it took at least a decade before the procedure worked. Eventually though, his method not only worked, but is the prime curative method in haematological malignancies and beyond; and Thomas got the Nobel Prize in 1990. Let us match that in psychiatry!

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References

Center of Disease Control. Available from: https://www.nimh.nih.gov/health/statistics/suicide.shtml

Hunger, S. P., & Mullighan, C. G. (2015). Acute lymphoblastic leukemia in children. *New England Journal of Medicine*, *373*, 1541–1552.

Pincock, S. (2012). Edward Donnall Thomas. *The Lancet*, *380*, 1988.

Stiller, C. A., & Draper, G. C. (1989). Treatment centre size, entry to trials, and survival in acute lymphoblastic leukaemia. *Archives of Disease in Childhood*, *64*, 657–661.