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Perspective Piece

Public mental health: a psychiatry and public health perspective

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Abstract

Mental health issues are fast becoming one of society's greatest health challenges with evidence of higher levels of illness and strain on psychiatric services. The reasons for this trend of increasing mental health problems across the population are complex and there is an urgent need to research and deliver effective public mental health strategies. In this perspective piece we argue that psychiatrists and public health physicians have unique knowledge and perspectives on population mental health. The development of interdisciplinary initiatives and training posts would result in clinicians with expertise to drive forward public mental health strategies. Focused and sustained advocacy and collaboration are necessary for prioritisation of public mental health on policymakers' agendas.

Key words: Policy; population mental health; psychiatry; public health; public mental health

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Introduction

There have been many successes in the delivery of mental health services over the last century including the progression from an asylum-based system to the increased resourcing of community-based mental health care (Burns, 2014). Nonetheless, major challenges remain as mental illnesses are now among those causing greatest long-term disability (Vigo *et al.* 2016). The burden of morbidity is compounded by the frequency of onset of mental illness at a young age, with an estimated three quarters of mental disorders having onset by mid-twenties (Kessler *et al.* 2007). This has potential to impact on mortality through suicide and the association between mental disorders and physical illness (Kessler *et al.* 2014). Furthermore, there is emerging evidence in some jurisdictions that levels of depression and anxiety in adolescents and young adults are rising (Dooley *et al.* 2019), which is occurring concurrently with a trajectory of increasing referrals to mental health services (Douglas & Feeney, 2016).

With the increasing prominence of mental health issues in society there is a growing recognition that mental health needs cannot be satisfied by exclusively providing clinical care to individuals, but that population-based approaches are also needed (Purtle *et al.* 2020). Mental health promotion is not a new idea with a substantial history over the last few centuries. The term 'mental hygiene', initially coined in the mid-19th century (Mandell, 1995), was developed into a movement aiming to improve the care of those with mental illness in the early 20th century. This focus progressed to identifying mental illness early and trying to prevent its onset (Bertolote, 2008), and continued as international bodies such as the International Congress of Mental Health and the World Health Organization (WHO) increased efforts to promote positive mental health during the 20th century. In 1948 the WHO defined health as 'physical, mental, and social well-being, and not merely the absence of disease and infirmity' (World Health Organization, 1948). As population demographics increased in age, it was recognised that broader concepts of health were important for healthy ageing (World Health Organization, 2015). With the main cause of morbidity globally transitioning from communicable diseases to lifestyle-related non-communicable diseases, it was recognised that a shift in strategy was needed to improve health across the lifespan.

The Ottawa Charter for Health Promotion laid the foundations for more holistic approaches to public health, incorporating public policies, environments and communities which 'make the healthy choice the easier choice', as well as reorienting health services towards prevention (World Health Organization, 1986). The adoption of the term 'health improvement' emphasised that the aim of public health policies is not necessarily binary, in which a condition can either be prevented or not among those who are initially well; rather the focus should sometimes shift to a spectrum from wellness to those with a diagnosis, aiming to delay the onset or reduce the severity and impact of the condition, while also providing a special focus on the most vulnerable groups in society. Population approaches are required to improve outcomes across the spectrum from health to disease and the concept of 'health improvement' is an appropriate model for mental health and well-being.

Mrazek & Haggerty's (1994) public health definition of 'mental disorder prevention' in the late 20th century remains relevant today: 'reducing incidence, prevalence, recurrence of mental disorders, the time spent with symptoms, or the risk condition for a mental illness, preventing or delaying recurrences and also decreasing the impact of illness in the affected person, their

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families and the society' (Mrazek & Haggerty, 1994). Such improvement of mental well-being across the population is an ideal target for public health and should be on a par with other public health priorities such as the prevention of cancer and cardiovascular disease. Policies and strategies to reduce the burden of mental illness need to implement evidence-based, cost-effective interventions (Jané-Llopis *et al.* 2011), however given the complexity of mental illness prevention it can be challenging to determine how society should distribute finite resources for this crucial issue.

In this perspective piece we will consider some concepts related to population health, public health and mental health, and discuss the important role that academic experts and clinical leaders should play in considering available evidence so that public mental health can be delivered most effectively. We will argue that population-level improvements in mental health should be facilitated by a 'public mental health' approach, with collaboration between psychiatrists and public health physicians along with other health professionals and societal stakeholders.

Public health and population health concepts

Public health physicians carry out similar functions to other physicians except that they work at the level of populations and communities. Tannahill (2008) likened such complementary approaches to the layers of an onion, with the focus in the inner layers on clinical care for individuals and families, while the population focus starts with the outer layers of culture and determinants of health. Improvements in the environment and determinants of health reduce the burden of morbidity and the need for other services. Behaviour change is facilitated by implementing national policies, creating supportive physical, social and economic environments, as well as by engaging with communities (Doyle *et al.* 2006). Public health can facilitate those receiving care to follow advice about behaviours which can improve their health, while clinicians, in addition to providing care, can be powerful advocates and effective leaders for health promotion and prevention.

Public health classifies prevention into primary, secondary and tertiary measures. Primary prevention aims to stop mental health problems occurring and can also aim to promote positive mental health for all, for example through mental health awareness campaigns and public education (World Health Organization, 2004). Secondary prevention aims to lower the population prevalence through early detection and treatment of diagnosable illnesses, for example by providing early access to psychosis services. Tertiary prevention includes interventions to reduce disability, enhance rehabilitation and prevent relapses and recurrences of the illness. Tertiary prevention may be considered as complementary to usual treatments, although it may be conducted separately in the community, for example through vocational training or 'hearing voices' peer support groups following a first episode of psychosis. Primary, secondary and tertiary prevention strategies are essential components of an overall strategy for public mental health, with each having benefits in different population subgroups and across different time frames. In practice this involves societal and community interventions, as well as interventions in primary, secondary and tertiary care services.

Alcohol policies are an example of the application of population-level public health interventions which support both mental and physical health. In the 1930s the prevailing theory was that some people are constitutionally predisposed to 'alcoholism'. However, analysis of national statistics for England and Wales around the time of the First World War found a consistent association between population-level alcohol consumption and the prevalence of alcohol-related health and social problems (Wilson, 1940). Ledermann compiled data on the relationship, producing distribution curves to support the hypothesis that the prevalence of alcoholism was related to per capita consumption (Cartwright & Shaw, 1978). International experts lead by Bruun reached similar conclusions (Bruun, 1975), as did De Lint & Schmidt (1971) who also concluded that per capita alcohol consumption was related to the price and availability of alcohol. Examples of policies to address this include taxation on alcohol and the licencing of outlets, with positive impacts from some interventions such as the introduction of 'unit pricing' of alcohol in Scotland (O'Donnell *et al.* 2019).

Another important concept in public health arises from consideration of how best to reduce total population risk of an illness and whether benefits are greater from focusing on those with highest levels of the known risk factors or from reducing lifestyle-related risks in the bulk of the population. This was debated in relation to coronary heart disease in which an analysis of cohort studies found that while those at highest risk of incident disease were an important group to identify and support, the majority of cases emerged in the bulk of the population at lower absolute risk. In a landmark paper, Rose concluded that 'a large number of people at a small risk may give rise to more cases of disease than the small number who are at high risk' (Rose, 1985). He also drew attention to the prevention paradox: 'A preventive measure which brings much benefit to the population offers little to each participating individual'.

Mental health concepts

There is substantial research into aetiology of mental illness which could help to inform public mental health strategies, however the most effective and cost-efficient approach to implementing public mental health strategies is not fully clear. Much research highlights an association between various risk factors and later mental illness, although there is less definitive evidence about causal risk factors for mental illness. For example, secure early life attachment is recognised as a key component of emotional development, and disruption of attachment has been implicated in the development of later mental illness (Spruit *et al.* 2020). Such evidence suggests that public mental health strategies should aim to support the development of secure attachments and caregiving within a positive environment for families with young children. Some examples of this might include investing in perinatal supports and perinatal psychiatric services, providing targeted supports for vulnerable families and universal teaching of positive parenting strategies. The evidence that adverse childhood experiences can impact on later life psychopathology (Dhondt *et al.* 2019) also suggests that adequate resources for child protection services, and child and adolescent mental health services are basic requirements for public mental health. It is important to note that it is challenging to research the population mental health effects of investing in such services. However with evidence mounting for early life mental health risk factors, it is increasingly difficult to argue against the potential of an early intervention paradigm for reducing the lifelong burden of mental illness across the population.

In spite of the relationship between early life development and later life mental health, population interventions should not focus exclusively on early life, and it is important that public mental health interventions are considered across the age spectrum.

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The life course approach to health recognises key stages that can impact on health over the life cycle including pre-conception, infancy, childhood, adolescence, adulthood and older age (Mikkelsen *et al.* 2019). Mental health trajectories may be negatively or positively impacted at each stage, with potential to affect health and illness into older age. The different models of life course aetiology share the concept that socio-economic, environmental and genetic factors cumulatively influence health and health behaviours. It is also notable that diagnostic heterogeneity occurs among individuals across the life course as evidenced by the frequent development of psychiatric comorbidities with progressing age (Caspi *et al.* 2020). The ongoing impact of negative influences are not however inevitable, and connecting the biological, psychological and social models of the life course approach has the potential to support the development of effective population interventions to improve mental health.

It is also challenging to evaluate the potential benefit of other later life low intensity population interventions such as life skills courses, stress management programmes in workplaces, high-quality brief counselling and social prescribing (Petersen *et al.* 2014). These interventions are usually relatively safe if applied appropriately with professional training and regulation standards. Such interventions would ideally be delivered alongside the availability of well-trained primary care practitioners who can act as gatekeepers to direct patients to the correct level of intervention and refer for more specialised clinical assessment in a timely manner when needed. Other population interventions that could be considered in earlier life include promoting resilience and suicide awareness in schools.

Since many of the determinants of severe mental illness remain either uncontrollable or unknown, targeting resources to high risk individuals remains important. Whilst the increased resourcing of preventive mental health strategies should be advocated for, the chronic underinvestment in specialist mental health services also needs to be recognised. Mental health has become a more visible concept in the media and political discourse in recent times, however, this less often extends to discussing the more severe end of the mental illness spectrum which remains heavily stigmatised. The funding of adequate secondary and tertiary care services for severe and enduring mental illness should not need to compete with the funding of primary prevention strategies as part of an overall public mental health approach.

The service design of secondary and tertiary mental health services can also present significant challenges. In Ireland for example there is catchment area based funding that results in inequities of resourcing and which can be further compounded by staff recruitment and retention issues. Increasing resources would support the retention of suitably qualified staff, capable of leading the delivery of high-quality mental services. Health services research and national auditing would help to address these types of issues.

Widening the lens further, lower socio-economic status is another risk factor for the development of both mental and physical illness (Kivimäki *et al.* 2020), which is also evident in studies highlighting the higher incidence of psychosis in areas of deprivation and migration (Kirkbride *et al.* 2010; Lund *et al.* 2014). These associations are not unidirectional, as education, employment and income may be affected by both physical illness and mental health. It is also well documented that mental disorders increase the risk of physical illness and vice versa (World Health Organization, 2004), an issue getting increasing recognition given the reduced life expectancy among individuals with severe mental illness compared to their peers (Firth *et al.* 2019). The complexity of the interactions between mental health and socio-economic status is highlighted when the debate regarding the social drift *versus* social causation hypotheses of mental illness is considered (Lund *et al.* 2014). Regardless of our understanding of the reasons why, reducing socio-economic inequalities might have the potential to impact on the overall prevalence of mental and physical illness (Reiss, 2013). Such interventions are at the primordial level of prevention, requiring substantial leadership and commitments at political and societal levels.

In addition to the perennial issue of social inequity, there are several emerging issues which could be targeted by collaboration between public health and psychiatry. The intersection between public health and mental health has perhaps never been so evident as during the COVID-19 pandemic which impacted many facets of mental health (Ashton, 2021). Other future research directions include evaluation of the impact of technology such as smartphones on mental health (Makin, 2018), although it has also been suggested that smartphone and digital technology can be a useful complement to treatments for mental health conditions (Miralles *et al.* 2020). Other policies which need appraisal for population mental health include suicide prevention (World Health Organization, 2013), gambling policies (Columb *et al.* 2018), anti-bullying strategies (Jadambaa *et al.* 2019), green spaces in the built environment (Moore *et al.* 2018) and climate change (Evans, 2019). In Table 1, we have outlined examples of measures which merit consideration in future public mental health strategies.

What role should Psychiatrists and Public Health Doctors play in implementing public mental health policies?

It has been suggested that many stakeholders are needed to implement the complex strategies required for delivering public mental health which cross economic, social, legal, environmental and healthcare domains (Purtle *et al.* 2020). Input from advocacy groups for people with serious mental illness is also important as public and patient involvement is a crucial component of successful policy. Strong leadership in policy development is essential to advocate effectively, and it can be argued that this leadership should be delivered from within the medical profession. In addition to epidemiology, public health physicians have expertise in assessing the social, cultural and economic determinants of health, and an understanding of the complex intersectionality of these determinants, and of their impacts on population health. Psychiatrists have expert clinical knowledge of the effects of these determinants on their patients, and the trajectory of their illnesses. Combining these competencies would produce leaders who have the skills to advocate for, and advance, evidence-based public mental health strategies.

Although a significant portion of mild to moderate mental illness management occurs in primary care and other settings, psychiatrists have a unique perspective on the potential causes of mental illness in society by virtue of managing severe and complex mental illness on a daily basis. Psychiatric services should at the very least be considered a key stakeholder when planning public mental health strategies (Saxena *et al.* 2006), and as medical professionals with significant academic expertise it could be argued that psychiatrists should play a greater leadership role in public mental health policy.

Public health doctors have many facets to their role, not least having played a prominent part in recent leadership during the COVID-19 pandemic. Public health doctors are well placed to

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Table 1. Examples of public mental health measures

Level of action	Measures to improve public mental health
Primary prevention	Mental health awareness campaigns Public education across a broad range of mental health promotion issues, including accessing care for symptoms of concern Perinatal support and education Child protection services Anti-bullying strategies Delivering low intensity population interventions in schools and workplaces such as life skills courses and resilience programs Policies aiming to reduce socioeconomic inequalities Suicide prevention strategies Legislation and taxation supporting positive lifestyle choices Providing green spaces in the built environment
Secondary prevention	Perinatal mental health teams Intervention teams for early life development in at risk children Early intervention services for mental illness Support groups to reduce risk of poor mental health in family and friends of those with mental illness
Tertiary prevention	Adequate funding for mental health services across all stages of the life course Developing community mental health services to improve access to care Rehabilitation and promoting vocational opportunities for those with mental illness
Other	Interdisciplinary public mental health initiatives and collaboration across stakeholders Development of courses and training posts specific to public mental health Public mental health research

advise on how an overall public mental health strategy should be resourced and delivered. However, given the complexity of delivering public mental health policies across primary, secondary and tertiary prevention strategies, it may be challenging for public health doctors to deliver policies effectively without having a specific remit for public mental health. The funding of such public health doctor roles might be the most effective strategy for ensuring appropriate expertise is available when delivering strategies for improving mental health across the population. Given the substantial economic burden of mental disorders on society, provision of such roles is likely to yield economic as well as societal benefits (Christensen *et al.* 2020). The development of public mental health posts may require funding of dual training or cross training posts in psychiatry and public health. The development of postgraduate Public Mental Health Masters Degree courses in certain Universities is welcome (https://www.qmul.ac.uk/postgraduate/taught/coursefinder/courses/public-mental-health-msc/). In addition, psychiatric training programmes should dedicate some time and attention to public mental health and mental illness prevention. Similarly, public health training should include some exposure to public mental health as part of the curriculum on non-communicable diseases.

As previously mentioned, it is notable that currently there is a lack of concrete evidence available to guide an overarching strategy for implementing the various public health measures which could impact on population mental health (Forsman *et al.* 2015). Much of the evidence in relation to aetiology in mental illness does not meet the threshold for causality, and furthermore the evidence that community level public health interventions can reduce mental illness related morbidity and mortality across the population is weak (Castillo *et al.* 2019). Nonetheless this should not deter society from funding research and trying to implement public mental health strategies. Collaboration between public health doctors and psychiatrists is needed for developing data collection procedures and research which will inform public policy. At a minimum there should be evidence in relation to the prevalence and economic costs of mental illness when considering an overall mental health strategy. Acquiring evidence on interventions to improve population mental health can be more challenging than evaluating interventions for physical illness where more accurate measurement tools may be deployed. This is compounded by the challenges of evaluating interventions at a population level, and furthermore the significant time lag which occurs between implementing early life course interventions and realising later life population mental health benefits. Nonetheless quantitative and qualitative research needs to be undertaken in an ethical manner to ascertain baseline status of mental health in the population, monitor the delivery of programmes and assess population mental health during efforts to implement public mental health interventions (Tannahill, 2008).

Increasing shared initiatives between public health and psychiatry professionals might be a further important step towards delivering public mental health policy into the future. Development of joint working groups where experiences and knowledge are shared may facilitate increased expertise in public mental health. By collaborating effectively public health and psychiatry disciplines can develop this crucial and exciting area of medical expertise.

Conclusion

Public mental health is a complex but highly important field that needs much research and development in the coming decades. While understanding concepts related to public health and mental health can support the development of policies and implementation of strategies, a sustained advocacy drive will be required to access resources to plan, implement, monitor and evaluate health promotion interventions and high-quality mental health services. Increased collaboration between public health doctors and psychiatrists is needed to develop this field and deliver coherent evidence-based strategies aimed at improving population mental health. Small policy shifts and strategies could result in major economic benefits while also having a significant impact on the mental health of the population.

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