

Pathways to Lifelong Mental Wellbeing October 2021

Public Mental Health: Discussions on Semantic and Taxonomic Problems Regarding Mental Health and Illness, and the Application and Implications of New Techniques

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Background

According to the World Health Organization's (WHO) Constitution, health is a state of "complete physical, mental and social wellbeing and not merely the absence of disease or infirmity." This suggests that the concept of mental health is also broader than simply the absence of mental disorder or disability. Diagnosed psychiatric disorders, on the other hand, cause substantial human suffering with important implications at several levels, even beyond the affected individual: the family, the healthcare system and society at large.

To support policy decisions and development of effective preventive mental health measures, there is a need for harmonization of terminologies. Therefore, discussions on the definitions of mental wellbeing and existential health, versus mental ill health and diagnosable psychiatric conditions, seem warranted. Ideally, this should be based on the identification and proper use of representative and robust data to monitor public mental health. Making comparisons across nations using similar indicators demands rigour at collection and the presumption that sampling, attrition, adjustments and management of data are quite similar.

Moreover, digital techniques are likely to affect this field. Obviously, local, regional and national determinants of mental health are influenced by the political climate, social infrastructure and cultural factors.

The question is: Is it possible to identify generic and generalizable common domains and denominators of mental health?

Approach of the Workshop

Workshop design and discussions

The workshop topic was distributed to four discussion groups, which were to take on slightly different tasks and

topics. Two groups discussed taxonomy and definitions, two other groups addressed the relevance of emerging novel techniques and their impact on the field of mental health. Participants were from Europe, Africa and South America.

Highlights from the discussions

What is mental health and how should we measure it?

- Monitoring mental health at the population level is important for early intervention and prevention. It is a challenging task, as it is highly contextual and depends on socioeconomic and cultural factors. The aim of data collection should determine the choice of data and methods to be used.
- A global public health initiative should include all sectors of society and consider social justice and setting of standards. The question is, however, will such monitoring give the intended positive effects?

The general notion was that definitions at the population level are important for early identification of prevention targets and areas. The aim of data collection should determine the choice of data and methods to be used. While data within disorder domains are easier to follow with existing classification systems and adequate national registers, concepts like "happiness", used for example in Ghana, are more difficult to address. It was suggested that defining mental wellbeing is highly contextual and cultural, as is determining what defines a good life in different societies. Definitions of mental health should ideally include all groups in a given society/nation. How data are registered as well as their population coverage is crucial for data accuracy and trust.

One of the groups discussed whether it was useful or beneficial to measure mental health. At a philosophical level, the question was raised of whether setting



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measurable standards per se can create mental ill-health if those standards cannot be reached. What would be the consequences of measuring?

Still, we will need to measure some domains to prevent mental health problems and marginalization or exclusion of individuals and groups. Assessment of determinants related to mental health like social conditions may play a role, but it was questioned whether this is useful for assessing “mental health”. One conclusion was that global public health initiatives must include all sectors of society and connect to social justice and setting of standards.

Another group argued that the nature of data is important. “What you ask is what you get”. If you obtain a lot of data and add living conditions, you may add to the diagnostic levels for “suffering”. We need to consider diagnoses by combining biological aspects and context. For instance, we need to identify who is suffering and who is responsible for the suffering: the individual, his/her family or society? And can we then build prevention systems into society? In Kenya, attempts are being made to measure different variables in children and parents alike, and then to use digital data to come up with algorithms for intervention thresholds.

Definitions of mental health, mental ill health and illness

- The relationships between the terms mental health, mental well-being and mental ill health need further exploration. One suggestion is to use and build on the term mental capital instead of mental health.
- New areas within the domain of mental ill health should be accompanied by ethical reflection on prioritization by decisionmakers. The identification and treatment of severely debilitating psychiatric conditions should be included in discussions on horizontal prioritizations.

The WHO considers “mental health” to be independent of “mental problems” and “mental disorders”. Thoughts that were put forward included promotion of a positive

notion like “mental health”. However, getting a diagnosis may support the person in finding help to adjust his/her functioning. All people, even healthy individuals, sometimes have mental problems. Thus, “mental health” as an entity is interrelated with “mental problems” and “mental disorders”.

Some participants suggested it might be time for a perspective change: Can we promote mental health? Use of a defined term like “mental capital” may add value. Mental capital could include, e.g., how many people have social support (friends, family) or positive leisure time. There was disagreement concerning whether objective measures of mental health are at all possible, and what they might be. Concerning Ghana, one reflection was that monitoring mental health will likely help minimize the societal stigma.

What distinguishes mental disorder outside criteria in classification systems like ICD 10, 11 and DSM-5?

- Within the disease domains and classification systems, incorrect use of terms and semantics may cause stigma, imprecision, a sense of false security and erroneous treatment choices.
- There is a need for basic knowledge of taxonomy among professionals. However, variations in degree of granularity of criteria may be a problem depending on the context and understanding of their use.
- Transdiagnostic dimensions may be more fruitful targets for treatment, as suggested by the dimensional Hierarchical Taxonomy of Psychopathology (HiTOP) and the biology-based Research Domain Criteria (RDoC).
- A concluding remark was that terminology should ideally reduce stigma regarding mental health and ill health, but without minimizing the extensive, continued suffering or impairment of individuals with severe mental disorders.

It was a general view that professionals need at least basic knowledge of both the more detailed and granular DSM-5 developed for specialist psychiatry settings and ICD, which is intended to function in most clinical settings world-wide. Moreover, continued harmonization of content is needed.

The group reflected on the current classification systems and agreed on the fact that “disease activity” (degree of functional impairment) is well described in WHODAS 2.0.

There is an important conflict in the level of detail or granularity of the various diagnostic systems. Higher levels of detail may improve diagnostic reliability and sensitivity for less specialized professionals and settings such as GP outpatient clinics. Conversely, narrowing

requirements for a diagnosis may create a sense of false security and challenge molecular genetic and neurobiological research suggesting substantial transdiagnostic vulnerabilities (e.g., distress or emotional instability, fear, thought disorder) across many currently delimited disorders.

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Hence, different symptomatology, depending on the specificity of defining symptoms, might require varying degrees of detail in diagnostic criteria.

The purpose of diagnostics is important to consider. Is it to meet societal or organizational needs rather than those of the individual and/or his or her family? Precise diagnostics should primarily inform treatment choices. Importantly, trustworthy, correct diagnostics is needed to ensure economic coverage of treatment in many countries.

It was also concluded that distress and impairment are core criteria for differentiating mental ill health from mental disorder.

A concluding remark was that terminology should ideally reduce stigma regarding mental health and ill health, without minimizing the extensive, continued suffering or impairment of individuals with severe mental disorders.

The use of novel techniques in mental health, today and in the future

- Because mental disorders are expressed differently across individuals, biological markers could help differentiate subtypes and inform prognosis. This should be the case also with verbal and non-verbal data from recorded psychological therapy sessions, an area where Artificial Intelligence (AI) could be helpful.
- Combining Big Data from epidemiology, prevention, and healthcare with data-driven approaches could be used to “re-boot” diagnostic systems and taxonomy. However, there are important integrity issues.
- Precision medicine has the potential to generate more directed and adaptive treatment strategies. However, what the term precision medicine encompasses needs to be better defined.
- In a broader sense, mental health and psychiatric illness are strongly multidisciplinary areas, where psychiatrists and psychologists should work together with data scientists, social scientists and philosophers.

Two groups independently discussed the emergence of new technologies, digital tools, Big Data and AI and their applications and implications for mental health.

The groups concluded that we have good reasons to expect further important research to be done within neuroscience, Big Data, genomics, also in relation to psychiatric disorders. AI could possibly help early identification of at-risk individuals before further worsening of health.

However, this new knowledge will not necessarily translate into novel treatments due to the complex nature of psychiatric disorders. Still, more targeted treatments may sometimes result from the emerging field of precision medicine.

Mental health and disorder are necessarily strongly multidisciplinary areas. Social science, history and other disciplines should also be considered when developing models. Philosophers, psychologists and AI experts should be included in research teams dealing with, for example, the study of consciousness.

Since the advent of DSM-III, there has been an important debate on the expansion of psychiatric diagnoses. Demarcation of the core areas of clinical psychiatry is exceedingly important.

Some rapidly emerging disease areas, e.g., neuropsychiatric conditions, may become the focus of more attention in society. Development of new disease areas should be accompanied by ethical reflection on prioritization by decisionmakers. The identification and treatment of severely debilitating psychiatric conditions should be included in discussions on horizontal prioritizations.

At present, we have a range of treatments for mental illness that seem to work to some extent. However, in the future, combinations of data could form a broader or transdiagnostic base rather than diagnoses described as so-called taxons (a unit used in the science of biological classification).

Applications of AI

- Digitalization may be used as a valuable tool in long-distance healthcare and diagnostics. AI may prove to be useful in data analysis and in treatment predictive tools for clinical decision-making and etiological research.
- We need to properly evaluate new techniques and measures before and after they are introduced or applied.

Randomized controlled trials remain important, but qualitative research methods should be used together with quantitative approaches and should also be included in systematic reviews.

The groups discussed the value and applications of AI. It was argued that AI could be used in clinical decision tools, as well as in prediction of which patients may not be helped by first-line treatments. Algorithms could provide a second opinion, improve diagnostic precision and help in avoiding bias. This may not be novel per se but the application to this disease area is partly new. An example from suicide prevention was provided. Individuals at risk of suicide may be missed because people in the immediate environment (e.g., social service staff, teachers, mental health professionals) can only access part of the available information on an individual at risk and may not understand how some factors or a combination of factors contribute to increased risk. It was pointed out that, like any other form of decision support, AI does not make the decisions, it makes suggestions. Because some information may not be available to AI, a person still needs to examine and talk to the patient.

Opinions were that there are risks both in relying too much on AI and not relying on it at all. There is a need for acceptance of AI on the part of practitioners, who may be hesitant about how their own relevance could be affected. If evaluated and used correctly, AI may provide more structured, objective and precise measurements and diagnoses. However, humans need to decide or program the outcome. For instance, AI could help define at what level and by what constellation of markers and symptoms someone should be diagnosed. In this context, it was mentioned that religion is integrated into assessment of mental health in some cultures.

Finally, the groups wanted to warn against uncritical enthusiasm for all “e-solutions”. The clinical physical encounter is still the core of practical healthcare and nursing. The art of healing may be helped by a screen but can usually do without, was one comment.

Final conclusions were that digitalization may be used as a valuable tool in long-distance healthcare and diagnostics. AI may prove to be useful in data analysis and in treatment predictive tools for clinical decision-making and etiological research.

The recommendations were to properly evaluate new techniques and measures before and after they are introduced in healthcare or applied.

Randomized controlled trials remain important, but qualitative research methods should be used together with quantitative approaches and should also be included in systematic reviews.

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