Introduction

In general terms, e-Mental Health (e-MH) is the use of digital technologies to support, deliver and enhance mental health services and improve the mental health and wellbeing of individuals. e-MH is often used as an umbrella term for a variety of technologies and technology-aided approaches which are enhancing service delivery through the transformation of patient roles and experience, predictive analytics and mobility to support self-management, aid diagnosis, and offer or complement therapeutic interventions. Patients and their supports and supporters can augment their own strengths and abilities by leveraging resources and toolkits online that minimise the traditional barriers of time, distance and rationing. They can experience services in new multi-channel and mobile ways and also have the capacity to draw strength and experience from other patients and communities. Predictive analytics can better target services recognising the wide variation in individual and community needs.

Some of these e-Mental Health technologies have been in use for decades whereas others are only recently beginning to emerge. The more established approaches have a stronger evidence base, but interventions developed for a specific purpose or population may not be effective or acceptable for all patients.

e-Mental Health can enhance all the core mental health service domains: clinical, administrative, research and educational. Participatory anticipatory models can be developed
that better integrate the approach towards risk identification and management, resilience building, illness recognition, recovery and relapse prevention.

A broad range of approaches may be utilised, from administrative support through to the delivery of therapy through variety of technology enabled communication channels, access to online resources, use of social media, smartphone apps to create tailored engagement e.g. Patient reported outcome measures (PROM) using validated screening instruments as an integral part of treatment, personalised messaging, immersive virtual and augmented reality tools, wearable monitoring technologies to enhance real time diagnostics and care, telehealth services and social support.

The ongoing building of ethical and evidence-based practice is core to healthcare delivery and to the ongoing development of e-mental health. All new interventions should be considered in terms of potential risks and benefits, treatment effectiveness, equitable utilisation and prioritisation of limited resources.

The value added by e-Mental Health

Health systems throughout the world are unable to respond adequately to the needs of people with mental health problems. The WHO predicts that by 2030 depression will be the leading cause of disease burden globally1 (WHO, 2013). e-Mental Health has potential to increase access to, and improve the quality of care, as follows:

- Improving access to early diagnosis, intervention and care, with reduced duration of untreated illness, and potential for less intensive treatment and faster recovery

http://www.who.int/mental_health/action_plan_2013/en/

- Improved efficiency - for many people, online information, self-management and e-therapy programmes may be sufficient to alleviate symptoms, at a minimal cost, and without clinical support. In some countries, tele-mental health and online services can provide more flexible access to person-to-person contact with a mental health professional, if this is needed. e-MH technology provides for quicker identification of more serious conditions, and/or access to
emergency support, enabling clinicians to focus on people who are most need.

- Help improve continuity of care – e-MH technology can facilitate collaboration between primary and secondary care, and other agencies.

- More equitable access to care – many of the barriers to care experienced by people on low incomes can be overcome when they can access lower-cost care, at times and places of their choosing, although limited access to the technology itself may be a barrier for some people. Fear of stigma is also barrier for many people in seeking help for mental health problems. e-MH support can be sought on an anonymous basis which can alleviate this problem.

- Help promote mental health and prevent mental illness – by enabling quick access to online information and self-management programmes, e-MH options can encourage people to take control of their own mental health, and seek help if they need to.

- Increase outpatient engagement – mobile phone applications are available for reminding people of appointments, recording and self-monitoring mental health conditions and unhealthy addictive behaviours, and communication with clinicians in between sessions.

**e-Mental Health options**

Telehealth, telemedicine, and virtual care are terms used to describe health care or medical services provided through communication networks. Video-teleconferencing, mobile devices, and internet-based communication may also be integrated options in telehealth services.

Tele-mental health can operate as discreet clinical services, able to provide a range of clinical, educational, and other health care options including assessment, screening for risk (particularly suicide risk), counselling, treatment and referral services when patients and mental health professionals are geographically distant.

Synchronous interactions include a patient and provider interacting in real time using two-way audio and video communications for carrying out assessments or therapies. Asynchronous applications, also known as “store and forward”, consist of health care information which may be collected and sent to the mental health care professional who can then at a convenient time review the materials and give feedback in due course. This option enables the clinician to
review video footage of a patient and email the observations and recommendations to the patient’s primary care physician hours or days after the video was recorded.

Other applications may include a mixture of both synchronous and asynchronous approaches. Some web-based services or mobile phone applications may allow and encourage patients to carry out asynchronous self-assessments and they may then be able to send these on to the mental health professional if they score above the cut-off point on a screening tool.

Clinical tele-mental health services can be wide-ranging in scope and able to be used in many settings. These include inpatient and outpatient clinics, correctional facilities, schools, nursing homes, and the patient’s home. Depending upon connectivity, privacy, confidentiality and safety issues, and location, there are many options available.

Online programmes range from simple assessment tools to sophisticated either evidence informed or evidence based e-therapy programmes, able to be used with optional telephone or online clinical support, or the physical presence of clinicians.

The Way Forward
The WPA considers e-Mental Health to provide valuable support for people with common mental health and addiction problems, and mental health services users and their families. e-Mental Health options enable psychiatrists to meet their obligations under the Declaration of Helsinki.

The growing evidence base for effectiveness of e-Mental Health options has led to the development of a number of national strategies and planning documents in this area, which include evidence-informed priorities for further development and implementation. However, systematic reviews indicate that the evidence base for e-MH needs to be strengthened. Well-designed, good quality research is lacking for many interventions, and this is essential to explore what types of e-MH will be effective for different purposes.

There are many aspects that countries and individuals will need to consider in taking advantage of e-Mental Health opportunities. We identify the following six priorities:

1.) Training for psychiatrists in e-Mental Health: Governments are ultimately responsible
for the standards set to train doctors in their country. Part of this is ensuring that the institutions responsible for training doctors and specialists equip them to use tomorrow’s tools. The development of a curricula addressing core competencies expected of undergraduates and post-graduates should be the first key step.

Learning is a life-long goal and encouraging established practitioners to become conversant with developments in all aspects of relevant medical practice through continuing education is essential.

2.) Confidentiality:
Patients should expect their personal information to be treated with respect and confidentiality. The protection of patients’ information must be properly managed irrespective of the care setting, including virtual settings. There are potential pitfalls in that with recent items about privacy algorithms being held by major social media sites which need to be monitored carefully.

3.) Record keeping: Records must be kept safe and secure whether they are paper based or electronic. Electronic data can be easily transmitted or transferred, and paper records can be lost or destroyed. The same requirements to preserve information and secure it against unauthorised access or distribution should apply to all patient data, regardless of how it is stored. Governments need to set criteria for data collection by digital interventions and decide how this might be regulated. Storage of data on personal computers and mobile instruments carries risk of data breach and potential for use for commercial purposes. In cooperation with governments and policymakers we urge national associations to create regulations for standard setting and reducing risks.

4.) Clinical Risk: e-Mental Health can improve the quality of care and support self-management. Telemedicine in particular is a legitimate component of a mental health delivery system to the extent that its use is in the best interest of the patient and is in compliance with APA policies on medical ethics. The same standards of care should apply with in person assessments as with online or remote assessments, and care
must comply with relevant clinical guidance. We recognise that e-Mental Health can be used to complement, rather than substitute for in-person care, especially in the diagnosis and treatment of severe mental health conditions.

5.) Health Care Planning: e-Mental Health options hold much promise. There is a growing evidence base but some technologies are relatively new and the quality of research is limited. Investment in good quality research alongside the development of interventions is important to refine and improve e-Mental Health quality and effectiveness.

The cost of developing digital systems across the care continuum and incorporating e-Mental Health into health care systems need to be adequately estimated and budgeted for. Robust economic analysis based on sound evidence for effectiveness is needed. Until there is much better information, anticipated cost savings from e-Mental Health must not be used to reduce spending on mental healthcare services.

6.) Reimbursement: The gains from e-MH can only be realised if barriers to its adoption are minimised. Funding for mental health interventions should be made on the basis of whether a service is effective for people in need, not solely on the basis of whether it is delivered face-to-face by a clinician.

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