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Gamification for sustainable mental wellbeing

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Gamification for sustainable mental wellbeing

The World Health Organization (WHO)ⁱ has predicted that depression will lead the global disease burden by 2030. Existing services are unable to meet the need of individuals and society with over 800 deaths by suicide annually. Depression and anxiety disorders in Europe have a prevalence rate of 5.1% and 4.3% respectively but other disorders include conduct disorders, bipolar disorder, and psychosisⁱⁱ. Mental health has therefore been included in the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs)ⁱⁱⁱ. The goal of sustainable mental health work is to improve prevention, personalise intervention, monitoring and support for emotional health and mental wellbeing in an individualised accessible manner over the long term.

Gamification and serious games for mental health are still relatively fledgling concepts, with potential benefits for psychological wellbeing and changes in behaviour. Designed to include elements of cognitive-behavioural therapy (CBT), monitoring mood and health, increasing motivation and engagement with activities, ultimately they aim to reduce symptoms. Games typically use progress feedback, points, rewards, prizes, and narratives. The aim of gamification is to provide positive reinforcement, enhance the adherence and finally improve the outcome of the use of mental health apps.

My preliminary work in gamification for mental health has focussed on social anxiety which, with a lifetime prevalence rate of 12%^{iv} can be debilitating. Yet poor access to services, perceived stigma, mobility issues and reluctance to engage with a therapist can hinder effective treatment. In a pilot study I developed social avatars for an attention and cognition based gamified training programme. I am following this up by looking at the effect of cognitive restructuring methods to facilitate social confidence as a gamified app. However, gamification approaches for mental health are still in a preliminary stage of development and the clinical benefit remains unclear. Whilst there have been some promising results^v, attrition rates have also been poor in some cases.^{vi} Moreover, many of applications have not been adequately tested for their efficacy in randomised controlled trials (RCTs)^{vii} therefore the challenge is in conceiving more effective designs and evaluation protocols.

ⁱ World Health Organization (2015). Global burden of mental disorders and the need for a comprehensive, coordinated response from health and social sectors at the country level: Report by the secretariat. 2015-07-22. http://apps.who.int/gb/ebwha/pdf_files/EB130/B130_9-en.pdf.

ⁱⁱ World Health Organization. Mental Health, Fact sheets on sustainable development goals: health targets. Available at https://www.euro.who.int/_data/assets/pdf_file/0017/348011/Fact-sheet-SDG-Mental-health-UPDATE-02-05-2018.pdf. Accessed 30/09/2021.

ⁱⁱⁱ Transforming our world: the 2030 Agenda for Sustainable Development. United Nations, NY2015

^{iv} Kessler, R.C, Berglund, P., Demler, O., Jin R. & Walters, E.E. (2005), Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Archives of General Psychiatry*, 62:593–602.

^v Pijkerman, M. P. J., Pots, W. T. M., and Bohlmeijer, E. T. (2016). Effectiveness of online mindfulness-based interventions in improving mental health: a review and meta-analysis of randomised controlled trials. *Clin. Psychol. Rev.* 45, 102–114. doi: 10.1016/j.cpr.2016.03.009

^{vi} Brown, M., O’Neill, N., van Woerden, H., Eslambolchilar, P., Jones, M., and John, A. (2016b). Gamification and adherence to web-based mental health interventions: a systematic review. *JMIR Ment. Health* 3:e39. doi: 10.2196/mental.5710

^{vii} Bakker, D., Kazantzis, N., Rickwood, D., & Rickard, N. (2016). Mental Health Smartphone Apps: Review and Evidence-Based Recommendations for Future Developments. *JMIR mental health*, 3(1), e7. <https://doi.org/10.2196/mental.4984>