Online peer-to-peer support in youth mental health: seizing the opportunity

Commentary on: Naslund *et al*. (2016). The future of Mental health care: peer-to-peer support and social media. *Epidemiology and Psychiatric Sciences* (2016), doi: 10.1017/S204579601500106

Naslund *et al*. (2015) provide a valuable contribution with respect to the potential of online peer-to-peer support to reduce stigma, promote social connectedness and ultimately, improve the wellbeing of people with serious mental illness. We offer two additional opportunities provided by online social media by fully integrating user-led interventions with research innovation and by advancing a science of social media interventions in mental health. In addition, we provide a brief description of a new model of social media-based interventions developed to enhance engagement and long-term recovery in youth mental health.

The social media revolution has transformed the way in which people interact with one another and the wider community. Never before has information and communication been so accessible to so many. An emerging evidence base indicates that people with serious mental illness take advantage of the opportunities provided by social media (Haker *et al.* 2005; Schrank *et al.* 2010; Rice *et al.* 2014). For example, people suffering from psychosis use online social networking to create new relationships, maintain existing social connections, reconnect with old friends and obtain peer support (Highton-Williamson *et al.* 2015). Preliminary research indicates that use of social media is ubiquitous among young people suffering from mental disorders, with virtually all young people diagnosed with psychosis or depression using social media daily – an average of 2 and 3.5 h per day,

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respectively (Birnbaum *et al.* 2015). It is clear, therefore, that novel information and communication technologies offer an unprecedented opportunity to extend the well-documented benefits of peer-to-peer support (Corrigan, 2006; Davidson *et al.* 2006) in mental health treatment (Alvarez-Jimenez *et al.* 2012).

Seizing the opportunity: integrating online peer-to-peer support and research innovation

Naslund *et al*. (2015) argued that artificially developed online networks may lack the norms and dynamics of naturally-occurring online peer-to-peer forums and future studies should attempt to leverage these natural online communities. While this is an interesting proposal, the field needs to guard against prematurely embracing and leveraging naturally-occurring peer-to-peer networks, without rigorously evaluating their effective components, benefits and potential harms (Linden & Schermuly-Haupt, 2014). We propose that, if the field is to maximise the potential of social media to promote recovery of mental health, online peer-to-peer support, needs to be informed by, and evaluated through, well-designed controlled studies. The WHO Global eHealth Evaluation Meeting's Call to Action (Bellagio, September 2011) consensus statement stated that 'to improve health and reduce health inequalities, rigorous evaluation of eHealth is necessary to generate evidence and promote the appropriate integration and use of technologies'. In other words, the enthusiasm for mental health reform in the social media era must be driven and guided by evidence. This will reduce the risk of commercialisation and marketing of interventions that have not been validated. In addition, this would promote ongoing innovation in the field, with ineffective interventions likely to be discarded, and maximise the use and incorporation of effective social media-based interventions by mental health services.

As Naslund *et al.* pointed out, a concerted effort is needed to address the methodological challenges

(and opportunities) derived from social media-based interventions (Naslund *et al.*, 2015). Indeed, the eruption of online peer-to-peer support together with novel data analytic approaches afford fascinating new prospects to address key questions in relation to the effects and mechanisms of these networks. New data will be generated and novel data analytic approaches such as social networking analysis (Otte & Rousseau, 2002) and data mining and aggregation can be used to determine how online social interactions and relationships develop and influence both mental health and social outcomes. Linguistic analytics (Tausczik & Pennebaker, 2010) and sentiment analysis can be employed to determine how the emotional valence of online communication affects engagement, online interactions and mental health outcomes. Coupled with machine learning methodologies, these new types of data may be used to make individualised predictions of risk for disengagement, imminent risk for relapse, self-harm, or even onset of psychosis in high-risk individuals (Bedi *et al.* 2015). Other important questions that the field will need to address are: What are the parameters (e.g., size, operations, etc.) of online social networks that ensure their safety and effectiveness? How do the characteristics of online social networks mediate their effects on mental health and social outcomes? What is the level of participation in a social network that is required to gain benefits? What are the appropriate targets for social media based interventions? How do clinicians or 'peer supporters' best intervene at the level of social networks as well as with individuals? We are still a long way from knowing the answers to these questions.

The science of developing and evaluating online social media interventions

We agree with Naslund *et al.* (2015) that the true challenge in social media-based interventions is to ascertain whether the strategies learned through the online social network are translated into tangible improvements in recovery. We propose that the design and development process of new social media-based interventions is critical in addressing this challenge and ensuring quality interventions that are safe, engaging and effective. The development process needs to follow participatory design methods, with end-users actively involved in the inception, design and delivery of the social media platform (Alvarez-Jimenez *et al.* 2014). We need to advance a *science of development* of online social media interventions in mental health. In order to meet key challenges in the field such as promoting social connectedness and long-term recovery, we require theory-driven, testable models of user engagement, user experience and

intervention effects as well as novel combinations of cross-disciplinary experts. For example, a significant challenge for online social media interventions is to create an environment that enables meaningful relationships, creating a sense of belonging and a positive therapeutic environment. Furthermore, improving social functioning requires online users to transfer the newly acquired skills, knowledge and confidence into behavioural change in the real world. Creating such a platform is likely to require the collaborative input of clinical psychologists, creative writers, software developers, experts in human computer interaction, game developers, artists and end-users.

The rapid development of online technologies has outpaced the timeline of conventional randomised controlled trials of social media-based interventions. This can result in evaluations of interventions that are obsolete by the time trial results become available. Novel research frameworks put forward solutions to this issue, balancing the need for ongoing technological improvements while maintaining the internal validity of the interventions being tested (Mohr *et al.* 2015). In this way, the core elements and theoretical principles of an online social media-based intervention can be operationalised and remain consistent during the evaluation process while allowing for ongoing quality improvements on the functionality, thereby maintaining technological currency (Mohr *et al.* 2015).

Integrating online peer support, research innovation and service delivery in youth mental health: the moderated online social therapy (MOST) approach

With the aim of illustrating a user-driven social media-based intervention designed to promote engagement and long-term recovery in youth mental health, we briefly describe the MOST model. The development of MOST has been guided by participatory design principles based on continual user feedback (Lederman *et al.* 2014). For example, focus groups with young people with psychosis and depression revealed that they favoured a social media-based platform enabling meaningful peer-to-peer contact as well as clinicians' support (Alvarez-Jimenez *et al.* 2012). This is in keeping with recent findings that over 70% of young people with psychosis or depression would like to be contacted by professionals via social media when experiencing symptoms (Birnbaum *et al.* 2015). In addition, online peer-to-peer systems should resemble commercial social networking packages (i.e., asynchronous, ongoing communication), but be separate from them, and expert moderators should guide, but not censor, the interaction to ensure a safe and supportive network (Alvarez-Jimenez *et al.* 2012). Finally, young people indicated that the system should provide self-guided, tailored

interventions, relevant to their moment-by-moment needs (Alvarez-Jimenez *et al.* 2012).

Informed by young people's feedback as well as research in the mental health and human computer interaction fields, MOST merges: (i) online social media, (ii) interactive therapy modules and (iii) peer and professional moderation, creating a constant flow for the user between the social and therapy elements. The online social networking component of MOST has been designed to counteract social isolation and disadvantage, enhance engagement with online interventions – a key challenge in the field (Eysenbach, 2005) – and improve uptake and acquisition of therapeutic strategies. Professional moderation follows a theory-driven model drawing on new frameworks operationalising online human support (i.e., the supportive accountability model (Mohr *et al.* 2011)) and new models of positive psychotherapy (i.e., strengths-based models (Seligman *et al.* 2006)) as a means of enhancing user engagement and self-efficacy. The use of peer moderation is a key component of MOST, serving to normalise experiences, counteract stigma and promote engagement. In MOST, the sum is greater than the parts. The result is that MOST enables a completely new *therapeutic milieu* in which participants can safely self-disclose, take positive interpersonal risks, broaden and rehearse coping skills, obtain encouragement and validation and learn how to solve problems and discover their personal strengths (Alvarez-Jimenez *et al.* 2013).

Conclusions

Online social media interventions hold great promise to advance mental health care. Guided by innovative, rigorous research, these interventions may serve to overcome some major challenges including engagement with mental health services and long-term recovery. Ultimately, online social media will empower consumers to link up and transform the nature of the services they are receiving. We agree with Naslund *et al.* that the time is ripe to embrace the challenge.

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