



Problematic mobile phone use: An emerging disorder?

By Dr Brendan Meagher MAPS MCCLP

Mobile phones are becoming increasingly pervasive in our lives. So much so that for many people, it's almost impossible to imagine life without their phone.

The potential for problematic mobile phone use (PMPU) has increased as mobile phones have evolved from a device devoted to communication between two people, to smartphones which provide internet access and allow for a wide range of online activities. As PMPU looks set to become one of the biggest behavioural addiction challenges of the 21st century there is increasing concern about the impact of this technology upon the user's mental health. This article explores PMPU as a potential diagnostic entity and target for intervention in clinical practice and encourages psychologists to consider PMPU when assessing patients in their practice.

PMPU is currently the most common term used to describe excessive mobile phone use. Other terms found in the literature include 'mobile phone addiction' and 'smart phone addiction' (Kim et al., 2016). PMPU can be defined as an inability to regulate one's use of the mobile phone, which has negative consequences in daily life (Billieux, 2012).

Australians and their mobile phones

- Fourth biggest users of smartphones in the world
- 84 per cent have a mobile phone
- 91 per cent aged 14 to 17 years own a mobile phone
- 85 per cent of adolescents exceed two hours per day of screen use
- Average Australian accesses their mobile phone 30 times per day
- 45 per cent say they can't live without their mobile phone
- 42 per cent of online time is via a mobile phone
- Australians spend an average of 2.5 hours per day on their mobile phone; equivalent to 38 days per year
- 42 per cent of users (aged 18+) report using their mobile phone while driving

PMPU is a worldwide issue

There is widespread concern across the world not just about the mental health impact of PMPU but also the physical consequences. For example:

- In Britain the penalties for driving while operating a mobile phone (which were comparable to Australian penalties) have recently been doubled in response to increased driver apathy with 14 per cent of the British driving population thinking it's acceptable to make a quick phone call while driving.
- In China in 2014, a staggering 47.2 per cent of road accidents were attributed to mobile phone use while driving (see Zhou, Yu & Wang, 2016).

- In Honolulu a distracted walking law banning texting or phone checking while crossing a road was recently introduced in an attempt to curb distracted walking incidents which have soared over the past 15 years.

These dangerous behaviours can in part be explained by research (Zhou, Yu & Wang, 2016) which shows that people tend to hold compensatory beliefs that the negative effects of an unsafe behaviour can be neutralised by engaging in another safe behaviour (e.g., I can use my mobile phone while driving because I will slow down). Unsurprisingly, there is a large body of evidence attesting to the dangers of using a mobile phone while driving (Rumschlag, 2015).

Theoretical framework

Substance addiction literature has been used as a starting point to explore and explain PMPU (Bianchi & Phillips, 2005). Billieux (2012) proposed the first theoretical framework for PMPU which describes four pathways to problematic usage: the impulse pathway (poor self-control/poor emotion regulation); the relationship maintenance pathway (obtain reassurance in affective relationships); the extraversion pathway (sociable and outgoing); and the cyber addiction pathway (addiction to online activities).

Consequences of PMPU

PMPU causes symptoms of addiction similar to the effects of substances, including overuse, tolerance, withdrawal, daily-life disturbance and positive anticipation (Kwon et al., 2013). Adverse consequences of overuse include physical health-related problems (Lee & Seo, 2014) an elevated risk of psychopathologies including aggression and sleep disturbance (Yang, Yen, Ko, Cheng, & Yen, 2010), decreased real-life social interactions, lower academic performance and a negative impact on relationships (Kuss & Griffiths, 2011).

Diagnosis

Given that mobile phone users exhibit serious problematic behaviours analogous to the criteria for substance use disorders, it is important for the psychologist to consider PMPU as a clinical presentation (Merlo, Stone & Bibbey, 2013) and to be aware of the negative ramifications of PMPU.

While there are no formal diagnostic criteria for a disorder characterised by excessive patterns of mobile phone use it is becoming increasingly clear that excessive mobile phone use can cause maladaptive behavioural difficulties seen in other behavioural addictions. The features of PMPU are remarkably similar to the DSM-5 criteria (American Psychiatric Association, 2013) for substance use disorders. The DSM-5 does not include any disorders related to problematic use of technology (internet gaming disorder was included as a condition requiring further

study) however the inclusion of gambling disorder as the first 'behavioural addiction' may prove to be a precursor to the eventual inclusion of mobile phone use disorder or the broader construct of internet or screen-device addiction/abuse.

Assessment

Detecting PMPU can be difficult as legitimate work and personal use often masks addictive behaviour. While there are a number of assessment scales for PMPU, all are in the early stages of development and validation, particularly using Australian samples. According to Billieux (2012) assessment should consider the patient's profile and involve clinical interview. Like substance use disorders, pre-existing factors increase the likelihood that an individual will be affected by PMPU (Kim et al., 2016). Indicators that might alert a psychologist that PMPU should be explored include but are not limited to:

- age – being adolescent or a young adult
- gender – being female
- neuroticism
- depression
- anxiety
- deficits in social relationships (shyness, social phobia, loneliness, social isolation)
- extroversion
- impulsivity
- low self-esteem
- emotional or behavioural issues in adolescence.

It is important for the assessment to also measure actual usage and distinguish between heavy use and problematic use. Although heavy use has been shown to be correlated with problematic use, some people may be heavy users without having any signs of problematic use (Billieux, Van der Linden & Rochat, 2008). It is the negative impact on social and occupational functioning that distinguishes PMPU from non-problematic use. Individual's self-reported mobile phone use can significantly underestimate actual usage. There are a number of free apps which can be downloaded to the mobile phone to provide data about actual daily, weekly and monthly usage.

PMPU can be easily masked by other comorbid conditions or legitimate use. Regardless of the presence or absence of pre-existing factors the psychologist may consider asking questions such as the following to evaluate problematic use:

- Do you think you spend too much time using your mobile phone?
- Has your mobile phone use caused problems in a relationship?
- Do people say that you spend too much time on your mobile phone?
- Does the time you spend on your mobile phone stop you from doing other tasks?
- Have you tried to cut down your mobile phone use?
- Have you used your mobile phone while driving or crossing a road?

Intervention

Cognitive behaviour therapy (CBT) has been shown to be an effective treatment for disorders which include compulsive behaviours (Hucker, 2004) such as PMPU. Patients are taught to

monitor their thoughts and identify those that trigger addictive feelings and actions while they learn new coping skills and ways to prevent a relapse. The early stage of therapy is behavioural, focusing on specific behaviours and situations where impulse control can cause the greatest difficulty. As therapy progresses, there is more of a focus on the cognitive assumptions and distortions that have developed and the effects of the behaviour (Young, 2009).

Similar to eating disorders in which recovery can be objectively measured via calorie intake and weight, PMPU can be measured using apps or self-monitoring methods as well as increasing alternative activities. Once a baseline has been established, behaviour therapy is used to relearn how to use the phone to achieve specific outcomes such as moderated online activities or total abstinence from problematic behaviours and controlled use for legitimate purposes. Hence CBT can be applied to address core beliefs, cognitive distortions and rationalisations that sustain PMPU (Young, 2007).

eTherapy

It is concerning that some patients, particularly adolescents and young adults seeking mental healthcare, may be directed towards internet-based interventions for depression and anxiety without being assessed for symptomology of problematic behavioural issues related to the use of internet-connected technologies. It is important for the eTherapy prescriber to be aware of any problematic use of technology in order to guide the patient's behaviour to what is useful and identifying what is unhelpful. According to Roser, Schoeni, Foerster and Roosli (2016) when assessing adolescents exhibiting behavioural or emotional problems, PMPU should be assessed.

Future research needs

To increase our understanding of PMPU further research is needed, including the development of:

- a valid and reliable measurement tool with empirically informed cut-off points for the Australian population
- empirically informed guidelines and strategies for adaptive mobile phone use
- empirical research to clarify the anecdotal evidence for the impact of PMPU on relationships, particularly between intimate partners, and also between parents and their children.

Conclusion

PMPU is a relatively new and emerging area of research and practice. It is likely that the terminology will evolve over time from PMPU towards internet-connected device addiction as all forms of internet-connected technologies continue to evolve and integrate into our lives. It is also likely that in the coming years the literature on PMPU and similar internet enabled entities will move towards clear guidelines for evidence based assessment and intervention in clinical practice. Psychologists need to lead the way in addressing how society can maximise these technologies while minimising resultant health issues. ■

The author can be contacted at brendan@mindhealthcare.com.au

A list of references can be accessed from the online version of this article (www.psychology.org.au/inpsych/2017/october/meagher).