

# CA

## **Counselling as a viable alternative to medication for the elderly**

Drugs do not have to be the first treatment option

## **Social networking sites and addiction**

Lessons from recent research

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Mental health and the coronavirus



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See page 59 for peer-reviewed article submission guidelines.



## Editorial



Important steps taken but more to do  
**Philip Armstrong**  
 Editor

Gaining professional, and political, recognition for qualified counsellors continues to be a challenge for the Australian Counselling Association (ACA) – but we are making some important advances.

After significant lobbying, the Allied Health Professions Association has now formally defined counselling as an Allied Health Profession in relation to COVID-19-related services.

While this is an important step forward, it still falls short of what we have been seeking in that it only applies to university-qualified counsellors who have graduated with a graduate diploma, bachelor's and/or master's degree.

The ACA agreed that consideration should be given to recognising diploma-qualified members as Allied Health Professionals – especially given the mental health consequences arising from the COVID-19 pandemic and its ongoing impacts on people, and on a range of levels.

The long-awaited recognition of university-qualified counsellors followed the National Allied Health Advisors and Chief Officers committee meeting to determine which professions should be considered to be Allied Health Professions for the provision of essential services during the COVID-19 pandemic. The committee ruled Allied Health Professions to be those with university qualifications and regulated under the National Registration and Accreditation Scheme or self-regulated through a professional peak body.

### Advocating for reduced higher education fees

On another front, the ACA successfully advocated against the proposed increase of fees for counselling degrees, and again we have had some success.

The federal Minister for Education, the Hon Dan Tehan, has confirmed to the ACA that counselling has been officially added to the professional counselling stream and that students can now benefit from reduced fees.

The ACA will now work with the Department of Education to advise students on the professional pathway through higher education.

The ACA is delighted that the government has realised the importance of registered counsellors within the mental health workforce.

Again, in the context of by the mental health pressures that are well recognised across the community, it is clear that qualified counsellors are essential to the delivery of vital mental health services. The need for registered professionals has, as we all know, never been greater.

### WHO recognition

The ACA is now recognised as an Observer member of the World Health Organization's Inter-Agency Standing Committee (IASC) Reference Group for Mental Health and Psychosocial Support (MHPSS) in Emergency Settings.

The IASC Guidelines on MHPSS in Emergency Settings were developed through an inclusive process, with input from UN agencies, non-government organisations (NGOs) and universities. The guidelines help to plan, establish and coordinate a set of minimum multisectoral responses to protect, support and improve people's mental health and psychosocial wellbeing during an emergency.

The IASC MHPSS Reference Group was established in December 2007. Its main task is to support and advocate for the implementation of these guidelines. The Reference Group comprises more than 30 members from around the world, and fosters a unique collaboration between NGOs, UN and international agencies and academics, promoting best practices in MHPSS.

The ACA is the first Australian mental health peak body to obtain Observer status within the IASC Reference Group. ■

For more information on the IASC Reference Group, see <https://interagencystandingcommittee.org/the-inter-agency-standing-committee>.

Photo: Unsplash



### Purple Day for Epilepsy

26 March 2021

Purple Day is a global initiative dedicated to raising epilepsy awareness. Purple Day was founded in 2008 by nine-year-old Cassidy Megan of Nova Scotia, Canada. Motivated by her own struggles with epilepsy, Cassidy started Purple Day to get people talking about the condition and to let those impacted by seizures know that they are not alone. She named it 'Purple Day' after the internationally recognised colour for epilepsy, lavender.

Purple Day has grown into a well-known and supported national awareness day with thousands of people across Australia gathering within their community and within the education and corporate sectors to raise much-needed awareness and funds for those affected by epilepsy. For more information, please visit [www.epilepsy.org.au/fundraise/purple-day](http://www.epilepsy.org.au/fundraise/purple-day).

### Pay It Forward Day

28 April 2021

Pay It Forward Day (PIFD) is a global initiative that exists to make a difference by creating a huge ripple of kindness across the world. The hope is that people pay kindness forward every day and make each day that little bit brighter for each other. The day aims to prove that small acts, when performed by millions of people, can change the world for the better. This year's PIFD aims to inspire over 10 million acts of kindness around the world. Imagine the difference that would make! Join in paying it forward and help spread the word about this important day. For free flyers, cards, school kits and other information, please visit <https://payitforwardday.com>.

### Wear White at Work Day

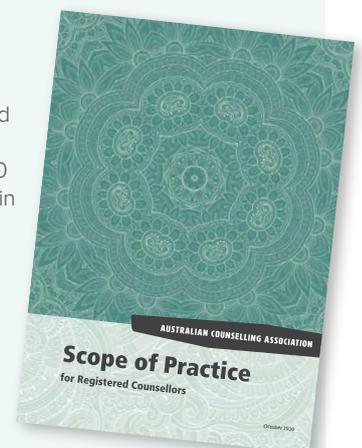
29 May 2021

On 29 May, wear white at work and donate a gold coin to show your support for mental illness sufferers and families of suicide victims. Each year we have to come to terms with the suicides of thousands of fellow Australians – of adults and children. For those left behind by these tragedies, the hurt is unimaginable. The White Wreath Association provides 24-hour support for anyone who is in need, by providing advocacy, assistance and support to both families and individuals who have been affected by a mental illness or suicide. Together we can continue to provide families and individuals with the support and care that they need in order to reduce suicide rates in Australia. Go to [www.whitewreath.org.au](http://www.whitewreath.org.au).

### Scope of Practice

Available now

The second edition (2020) of *Scope of Practice* is available now. Either download a copy from the ACA website or visit the shop to purchase for \$30 (including GST and postage within Australia). Go to [www.theaca.net.au/shop](http://www.theaca.net.au/shop).



# Technology Update

By Dr Angela Lewis

So here we are again – the beginning of another year! Courtesy of all that has gone on in 2020, we have a new term known as ‘doomscrolling’, also referred to as ‘doomsurfing’. It describes a tendency to compulsively surf or scroll through bad news, even if that news is saddening, disheartening or depressing. For example, constantly reading up on bad news regarding COVID-19 or the goings-on around the last days of the Trump presidency. The Merriam-Webster dictionary site has it down as a word “we are watching” and warnings about this practice being detrimental for some people’s mental health are starting to also appear online.

On that note, let’s get on with the rest of the column with something a little more lighthearted: some new terms and phrases that are being in used in social media – most notably by gen Z:

**1. Clapback:** *noun*

To indicate your (sarcastic) response to something you consider an insult or damaging. For example, you might fire back at a comment by simply writing ‘#clapback’ as your response.

**2. Boujee/bougie:** *adjective*

Originating from the word ‘bourgeois’, ‘boujee/bougie’ is to describe something as a bit fancy. It is mostly used in a pejorative way, implying that something or someone is pretentious.

**3. GOAT:** *noun*

An acronym for ‘greatest of all time’, when something is described as the GOAT it’s because you think it is truly A class.



**4. Tea:** *noun*

When used in the sentence “what’s the tea” or “spill the tea”, you are asking for some gossip.

**5. Gucci:** *adjective*

Not actually talking about the brand, calling something ‘gucci’ is equal to describing it as ‘good’. Did someone say gen Z is obsessed with brands?

**6. Stan:** *noun*

Used for an extremely or excessively enthusiastic and devoted fan of something – this could be of an actor, TV series, movie and so on.

**7. Woke:** *adjective*

I’d be remiss to leave this one out (much as I personally dislike it). To be ‘woke’ is to be considered actively attentive to current facts and issues (especially issues of racial and social justice, feminism, the environment and so on). People who use this word pride themselves as having open minds and being caring and politically correct.



Photo: Unsplash

### How to find something in an Excel spreadsheet

Finding a word or phrase is something we generally associate with word-based software, such as Microsoft Word, but you can use the same method to find words or numbers on a Microsoft Excel sheet – here's how:

1. Open your Excel spreadsheet.
2. Click on the cell you wish to check (or to begin from), then hold down the **Ctrl** key (**Cmd** on a Mac) while pressing the letter **F** key on your keyboard.
3. In the dialogue box that opens, type in the word, phrase or number you are searching for and then click either the **Find All** or **Find Next** button (depending on your needs). The found item/s will then be displayed with the cell references. Click the **Close** button when you are finished. And that's all there is to it!

### Turning on iPhone LED flash alerts

For the Apple iPhone 6 and later, you can set your phone to light up and flash for notifications when it is on silent.

- Tap **Settings**.
- Tap **Accessibility**.
- Scroll down a bit and find **Audio/Visual**.
- Scroll some more, then switch **LED Flash for Alerts** on. Note, if you select **LED Flash for Alerts**, the device will flash and light up even if not on silent.

Here's my tip on doing this: if your phone is on silent and is facedown, the camera flash on the back is very bright and some might find this as intrusive as the phone ringing. If you have it face-up, you can still see it flashing but it is not as bright and obvious as having it facedown, when the camera flash is completely exposed.

### Did Santa bring you an Apple Watch?

If you're the proud owner of a new Apple Watch, you have probably found there is a bit of learning to be done and I have found a site that is simple to consult and has all the key information you may need, just go to: [www.macrumors.com/2021/01/08/20-apple-watch-tips](http://www.macrumors.com/2021/01/08/20-apple-watch-tips).

*As always, all website addresses and user instructions supplied were correct at time of submission and neither the ACA nor Dr Angela Lewis receive any payment or gratuity for publication of any website addresses presented here.*

Photo: 123rf

## Book review



### Once upon a feeling

By Connie Boglis  
Reviewed by  
Amanda Dounis

With *Once upon a feeling*, Connie Boglis has created an opportunity for kids to learn a simple path to emotional wellness. In this book, she demonstrates how straightforward it can be to fix up how we feel.

I love that, as an early childhood teacher and professional counsellor, I can use this book to teach kids the simplicity of making things right when we have contributed to 'upset' (in ourselves or in others).

This book offers therapeutic tools appropriate for kids. They are creative, interactive and meaningful.

Quite often children (and adults) struggle with conversations about feelings. By using a friendly book like this to help start conversations early with children, they learn it is safe to explore how they feel.

This book teaches children to observe others, to enquire about how others are. It teaches children that we can feel symptoms own actions cause. Wonderfully, it shows children that they do not have to travel the journey alone. They can work it out with another person, and come up with a useful solution. In the end, you feel reassured that by taking action, you can change how you feel.

As a practicing counsellor, what I really like best about this book

is that it does not finish just with the story; at the end comes a short and pleasant mindfulness exercise.

Thank you, Connie. I have used this book with some of my child clients and their feedback shows me that your book opens them to many ideas of how to handle different feelings.

*Amanda Dounis (ACA Level 3) is a psychotherapist, counsellor, NLP Master, hypnotherapist and early childhood teacher, and is the owner of Positive Thinking Clinic and four early learning centres.*

Our members love to review books. Have you written a book you would like to have reviewed and published in *Counselling Australia*? If you have, please send a copy of your book to ACA, PO Box 88, Grange, QLD, 4051 and we will arrange for your book to be reviewed and publish it right here.

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# COUNSELLING AS A VIABLE ALTERNATIVE TO MEDICATION FOR THE ELDERLY

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When mental health struggles affect older people, medication does not have to be the first treatment option.

**By Chloe R. L. Wells**

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## **Abstract**

Currently, the most common treatment for the management of depression and anxiety amongst the elderly (over 65 years of age) is medication. While the elderly population generally reports the same or greater life satisfaction than those in other age groups, they are over-represented in the prescription and use of psychotropic medication for the treatment of depression and anxiety. There is evidence in the literature to suggest there is a discrepancy between the true rates of mental health issues in the elderly and the prescription and use of medication. The literature also discusses the potential negative health outcomes of incorrect prescribing, including acute hospitalisation and even death. Now, there is growing evidence to suggest that counselling and psychotherapy, specifically cognitive behavioural therapy (CBT) and problem-solving therapy (PST), are just as efficacious in the treatment of depression and anxiety amongst the elderly population. The current literature shows that these treatment modalities have significant impact on the severity of depression and anxiety and are just as effective for elderly people as for those in younger age brackets. Current research has also identified the effectiveness of combining counselling and psychotherapy and psychotropics to treat depression and anxiety on a deeper level. Pilot studies have shown significant improvement in symptoms when the two therapies are combined, both immediately after treatment and on follow-up.

## **Introduction**

It has been noted that the most common form of treatment for depression and anxiety amongst older people (over 65 years of age) is the use of medication. Research has indicated that the prevalence of such mental health concerns is, in fact, lower in older people than in any other age group (Kampfe, 2015). Older people report their life satisfaction is the same as or greater than for other age groups, as well as stating they are generally happy with their lives (Kampfe, 2015). However, despite this information, elderly people represent a portion of the population in which the use of psychotropic drugs for mental health conditions is most widely used (Voyer & Martin, 2003).

Therefore, there needs to be a shift in the way mental health is viewed and treated in the elderly. There is growing evidence to suggest that the use of counselling and psychotherapy is incredibly beneficial, if not more efficacious than the use of medications (Raue et al., 2017).

The aim of this paper is firstly to determine some possible reasons for this discrepancy and more importantly, discuss counselling as a viable alternative to the use of psychotropic medications.

## Literature review

### Discrepancies in prescribing

As previously mentioned, there is evidence in the literature that there is a discrepancy between the actual rate of mental health concerns amongst the elderly and the frequency with which medications are prescribed and used. Current research has outlined a few potential reasons for this. Firstly, while it is true that the elderly experience mental health issues at a lower rate than other age groups, manifestations of psychological distress are more common amongst the elderly (Voyer & Martin, 2003). Older people are confronted with problems that arise naturally due to the ageing process – for example, experiencing sleeping problems – and changes to their environment, which can include the death of a spouse or moving into an aged care facility (Voyer & Martin, 2003). While these changes can elicit symptoms of sadness, anxiety, a depressed mood, appetite changes and sleep disturbances, these can be a result of a temporary crisis rather than major depressive disorder (Voyer & Martin, 2003). Interestingly, the professional guidelines in Australia state that non-pharmacological methods of managing depression and anxiety amongst the elderly should be a first-choice option; however, in most cases psychotropic medications are prescribed (Westbury et al., 2019).

While new research and guidelines over the years has resulted in a reduction in the prescription of regular dose antidepressants and other psychotropic medication, it appears that there has been a shift to the prescription of alternative psychotropic medications, such as sedative antidepressants and anticonvulsants (Westbury et al., 2019). One of the primary concerns with prescribing such medications is the paucity of evidence on side effects and limitations, which can include agitation in dementia sufferers and insomnia. Additionally, these medications are known to have a negative impact on the rate of falls, infections and gastrointestinal problems with elderly users (Westbury et al., 2019; Berdot et al., 2009).

### Psychotropic medication issues

This is not to say that depression does not exist amongst elderly people – in fact, it is often underdiagnosed and undertreated. While approximately 50 per cent of depressed elderly people do respond well to antidepressant medication, the use of such medication can put their health at risk due to pre-existing health conditions and, in more severe cases, increase their risk of death (Fulone & Lopes, 2017; Du et al., 2019). Not only are those who use antidepressants more prone to cardiovascular events, they can experience cognitive decline when using certain types of antidepressants. Evidence in the literature also suggests that inappropriate drug use in the elderly results in a significant number of acute hospitalisations

that could otherwise be avoided (Klarin et al., 2005).

Research has shown that most of these drug-related hospitalisations can be avoided through more careful prescribing. Unfortunately, due to the range of health concerns an elderly person can be experiencing, it can be quite difficult for a physician to notice an adverse drug reaction. This often leads to the symptoms associated with such an adverse drug reaction being treated as a new health complaint and unnecessary pharmacological treatments being added to the regimen (Klarin et al., 2005; Johnell et al., 2007).

Additionally, pre-existing physical illness and handicap can impact the efficacy of and tolerance to such treatment (Fulone & Lopes, 2017; Jayasekara et al., 2015). Therefore, while antidepressants can be a useful treatment method for some elderly people, the use of these and other psychotropic medications leaves a wide margin for incorrect prescribing, which can have serious implications for the individual.

### Counselling as a viable alternative

Given this information, it is imperative to the health of the elderly population that other treatment avenues are explored. There is growing research to suggest that counselling and psychotherapy-based treatments are very effective in the treatment of late-life depression and anxiety (Hill & Brettell, 2005). There is mounting evidence that elderly people prefer psychotherapy to the more common pharmaceutical treatments (Raue et al., 2017). Similar outcomes have been achieved with the elderly when compared to those



Photo: Pexels

in mid-life and younger stages of life (Raue et al., 2017). When discussing counselling as an effective treatment, it is important to note that there are some types of therapy that are more effective than others.

### Therapeutic outcomes

Research has shown that cognitive behavioural therapy (CBT) and problem-solving therapy (PST) are amongst the most effective in treating both depression and anxiety (Raue et al., 2017; Hill & Brettle, 2005). When examined as a generalised treatment, CBT has been shown to promote improvement in depression and psychological wellbeing. In addition to this, researchers have found all types of group therapy for older adults to be equally effective in managing depression later in life, with their age having very little impact on the outcomes

(Hill & Brettle, 2005). Evidence to determine the efficacy of other types of therapy, such as reminiscence therapy, is weaker, but this does not mean they should be discounted as a form of treatment.

CBT has been shown to be useful not just for depression or anxiety in isolation, but it also has been successful in treating those with existing physical illnesses and other co-morbid psychological problems (Hill & Brettle, 2005). When CBT was carried out in groups with elderly people suffering from chronic illness and disabling physical illness, it was found that there was a significant drop in depressive symptoms, on par with those who were not experiencing the same health concerns (Hill & Brettle, 2005).

Group CBT has been shown statistically to have led to significant improvement in the ratings of depression amongst residents in

nursing homes with moderate to severe depression (Hill & Brettle, 2005). The same can be said for CBT when treating anxiety; those who participated in the therapy reported improvements not only post-therapy, but also at a one-year follow-up (Hill & Brettle, 2005).

Tailoring the care to the individual is highly important in any counselling setting, but even more so when treating older adults. This is due to the complexities that late life brings, including, but not limited to, the relationship between depression, medical burden, cognitive impairment and physical disability (Raue et al., 2017). In the case of older people who are experiencing dementia or other forms of cognitive decline, the use of reminiscence therapy has led to significant improvements in cognition, behaviour and communication (Hill & Brettle, 2005). While there is a whole range of therapies that could be used in



**About the author**

**Chloe R. L. Wells**  
Chloe R. L. Wells is a final-year Bachelor of Counselling student at the University of Notre Dame, Fremantle, Western Australia. She has a keen interest in promoting emotional resilience throughout the developmental lifespan. Chloe hopes to conduct further research in the area of grief and trauma counselling and psychotherapy.

the treatment and management of depression and anxiety, with the research mainly reporting positive outcomes, there is more research to be conducted to determine the efficacy of a range of treatments (Hill & Brettle, 2005).

The possibility of combining therapy such as CBT with appropriate medication to achieve positive outcomes for older people is becoming more relevant. A pilot study carried out combined selective serotonin reuptake inhibitor antidepressants and CBT to address generalised anxiety disorder, and it was found that by combining the two treatment methods, there was a significant reduction in the prevalence and reoccurrence of symptoms (Wetherell et al., 2011; Hill & Brettle, 2005).

## Conclusion

Every year, more research is emerging on the potential health implications for older adults resulting from inappropriate prescribing and incorrect use of psychotropic medications to treat anxiety and depression. Elderly people are being hospitalised and experiencing adverse side effects, which, in some extreme cases, can result in their death (Klarin et al., 2005; Johnell et al., 2007).

This paper has discussed potential explanations for inappropriate prescribing and has posited the efficacy of counselling as an alternative to medication. Research has concluded that counselling and psychotherapy, both individual and group, have had a significant positive impact on the health and wellbeing of elderly people (Raue et al., 2017; Hill & Brettle, 2005). There is also

the opportunity to combine both pharmacological and psychotherapy treatment modalities to achieve the best possible outcomes for older people, with research finding that when the two are combined appropriately, there are stronger outcomes than for one modality used in isolation (Wetherell et al., 2011). As health practitioners, we can be doing a lot more for our elderly community and their health and psychological wellbeing, as the research shows that counselling works for elderly people, especially for those suffering anxiety and depression, and it works just as well as it does for younger people (Hill & Brettle, 2005). ■

## References

Berdot, S., Bertrand, M., Dartigues, J. F., Fourrier, A., Tavernier, B., Ritchie, K & Alperovitch, A. (2009). Inappropriate medication use and risk of falls – A prospective study in a large community-dwelling elderly cohort. *BMC Geriatrics*, 9(30), 1-10. <https://doi.org/10.1186/1471-2318-9-30>

Du, Y., Wolf, I. K., Busch, M. A., & Knopf, H. (2019). Associations between the use of specific psychotropic drugs and all-cause mortality among older adults in Germany: Results of the mortality follow-up of the German National Health Interview and Examination Survey 1998. *Plos One*, 14(1), 1-15. <https://doi.org/10.1371/journal.pone.0210695>

Fulone, I., & Lopes, L. C. (2017). Potentially inappropriate prescriptions for elderly people taking antidepressant:

comparative tools. *BMC Geriatrics*, 17(278), 1-8. <https://doi.org/10.1186/s12877-017-0674-2>

Hill, A. & Brettle, A. (2005). The effectiveness of counselling with older people: Results of a systematic review. *Counselling and Psychotherapy Research*, 5(4), 265-272. <https://doi.org/10.1080/14733140500510374>

Jayasekara, R., Proctor, N., Harrison J., Skelton, K., Hampel, S., Draper, R., & Deuter, K. (2015). Cognitive behavioural therapy for older adults with depression: a review. *Journal of Mental Health*, 24(3), 168-171. <https://doi.org/10.3109/09638237.2014.971143>

Johnell, K., Fastbom, J., Rosen, M., & Leimanis, A. (2007). Inappropriate drug use in the elderly: a nationwide register-based study. *The Annals of Pharmacotherapy*, 41(1), 1243-1248. <https://doi.org/10.1345/aph.1K154>

Kampfe, C. M. (2015). *Counselling older people:*

*Opportunities and challenges.* American Counselling Association.

Klarin, I., Wimo, A., & Fastbom, J. (2005). The association of inappropriate drug use with hospitalisation and mortality: A population-based study of the very old. *Drugs and Aging*, 22(1), 69-82. <https://doi.org/10.2165/00002512-200522010-00005>

Raue, P. J., McGovern, A. R., Kiesses, D. N., & Sirey, J. A. (2017). Advances in psychotherapy for depressed older adults. *Curr Psychiatry Rep*, 19(9), 1-14. <https://doi.org/10.1007/s11920-017-0812-8>

Voyer, P. & Martin, L. S. Improving geriatric mental health nursing care: Making a case for going beyond psychotropic medications. *International Journal of Mental Health Nursing*, 12(1), 11-21. <https://doi.org/10.1046/j.1440-0979.2003.00265.x>

Westbury, J., Gee, P., Ling, T., Kitsos A., & Peterson, G. (2019). More action needed: Psychotropic prescribing in Australian residential aged care. *Australian and New Zealand Journal of Psychiatry*, 53(2), 136-147. <https://doi.org/10.1177/0004867418758919>

Wetherell, J. L., Stoddard, J. A., White, K. S., Kornblith, S., Nguyen, H., Andreescu, Zisook, S., & Lenze, E. J. (2011). Augmenting antidepressant medication with modular CBT for geriatric generalized anxiety disorder: a pilot study. *International Journal of Geriatric Psychiatry*, 26(8), 869-875. <https://doi.org/10.1002/gps.2619>



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# Social networking sites and addiction: Ten lessons learned



By **Daria J. Kuss and Mark D. Griffiths**

## Abstract

Online social networking sites (SNSs) have gained increasing popularity in the last decade, with individuals engaging in SNSs to connect with others who share similar interests. The perceived need to be online may result in compulsive use of SNSs, which, in extreme cases, may result in symptoms and consequences traditionally associated with substance-related addictions. In order to present new insights into online social networking and addiction, this paper will present 10 lessons learned about online SNSs and addiction, based on the insights derived from recent empirical research. These are: (i) social networking and social media use are not the same; (ii) social networking is eclectic; (iii) social networking is a way of being; (iv) individuals can become addicted to using SNSs; (v) Facebook addiction is only one example of SNS addiction; (vi) fear of missing out (FOMO) may be part of SNS addiction; (vii) smartphone addiction may be part of SNS addiction; (viii) nomophobia may be part of SNS addiction; (ix) there are sociodemographic differences in SNS addiction; and (x) there are methodological problems with research to date. These are discussed in turn. Recommendations for research and clinical applications are provided.

## Introduction

The history of social networking sites (SNSs) dates back to 1997, when the first SNS, SixDegrees, emerged as a result of the idea that individuals are linked via six degrees of separation (Boyd & Ellison, 2008), and is conceived as “the small world problem” in which

society is viewed as becoming increasingly interconnected (Milgram, 1967). In 2004, Facebook was launched as an online community for students at Harvard University and has since become the world’s most popular SNS (Kuss & Griffiths, 2011). In 2016, there were 2.34 billion social network users worldwide (Statista, 2017[1]). In the same year, 22.9 per cent of the world population used Facebook (Statista, 2017[2]). In 2015, the average social media user spent 1.7 hours per day on social media in the USA and 1.5 hours in the UK, with social media users in the Philippines having the highest daily use at 3.7 hours (Statista, 2017[3]). This suggests social media use has become an important leisure activity for many, allowing individuals to connect with one another online irrespective of time and space limitations.

It is this kind of connecting or the self-perceived constant need to connect that has been viewed critically by media scholars. Following decades of researching technology-mediated and online behaviours, Turkle (2015) claims





overreliance on technology has led to an impoverishment of social skills, leaving individuals unable to engage in meaningful conversations because such skills are being sacrificed for constant connection, resulting in short-term attention and a decreased ability to retain information. Individuals have come to be described as “alone together”: always connected via technology, but, in fact, isolated (Turkle, 2013). The perceived need to be online may lead to compulsive use of SNSs, which, in extreme cases, may result in symptoms and consequences traditionally associated with substance-related addictions. Since the publication of the first ever literature review of the empirical studies concerning SNS addiction in 2011 (Kuss & Griffiths, 2011), the research field has moved forward at an increasingly rapid pace. This hints at the scientific community’s increasing interest

in problematic and potentially addictive social networking use. In order to present new insights into online social networking and addiction, this paper will present 10 lessons learned concerning online SNSs and addiction, based on the insights derived from recent empirical research. These are: (i) social networking and social media use are not the same; (ii) social networking is eclectic; (iii) social networking is a way of being; (iv) individuals can become addicted to using SNSs; (v) Facebook addiction is only one example of SNS addiction; (vi) fear of missing out (FOMO) may be part of SNS addiction; (vii) smartphone addiction may be part of SNS addiction; (viii) nomophobia may be part of SNS addiction; (ix) there are sociodemographic differences in SNS addiction; and (x) there are methodological problems with research to date. These are discussed in turn.

## Ten lessons learned from recent empirical literature

### Social networking and social media use are not the same

Social networking and social media use have often been used interchangeably in the scientific literature. However, they are not the same. Social media refers to the web 2.0 capabilities of producing, sharing and collaborating on content online (that is, user-generated content, implying a social element). Accordingly, social media use includes a wide range of social applications, such as collaborative projects, weblogs, content communities, SNSs, virtual game worlds and virtual social worlds (Kaplan & Haenlein, 2010), each of which will be addressed below.

Collaborative projects can be shared and worked on jointly and simultaneously using cloud-based



Photo: 123rf

computing. Two different types can be distinguished: Wikis allow for creating, removing and modifying online content (for example, Wikipedia). Social bookmarking applications, on the other hand, allow for numbers of people to accumulate and appraise websites (for example, Delicious). Taken together, collaborative projects may produce a superior end result in comparison to individual projects (Kaplan & Haenlein, 2010), which can be linked to the concept of collective intelligence, whereby the intelligence in the group is greater than the sum of its parts (Lévy, 1997).

Weblogs (or 'blogs') can also be considered social media. Blogs allow individuals to share personal online diaries and information (sometimes in the form of images and videos), which may or may not be commented upon by other internet users. Next, there are content communities and video-sharing sites (such as YouTube).

Content may include videos, but also text (such as BookCrossing), photographs (such as Instagram), and PowerPoint presentations (such as Slideshare). In most cases, there is no need for individuals to have personal profiles, and if they do, these tend to include limited personal information. Virtual game worlds allow users to create an online alter ego in the form of an avatar and to play with other players in large gaming universes (the next section covers gaming in more detail). Kaplan and Haenlein (2010) differentiate these virtual social worlds from virtual game worlds, whereby the former allow individuals to create online characters that live in an alternative virtual world that is similar to their real-life environments, but defies physical laws. Arguably the best example of these virtual social worlds is Second Life, populated by human-like avatars who engage in activities users engage in every day, such as furnishing houses, going shopping and meeting friends.

Finally, there are SNSs, which we have previously defined as "virtual communities where users can create individual public profiles, interact with real-life friends, and meet other people based on shared interests" (Kuss & Griffiths, 2011 p. 3529). Social networking is particularly focused on connecting people, which does not apply to a number of the other social media applications outlined above. Engaging in social networking comprises a specific type of social media use, therefore they are not synonymous. Consequently, studies that have examined social media addiction and social networking addiction may also be using the terms interchangeably, suggesting nosological imprecision.

### Social networking is eclectic

Despite social networking being one type of social media use (as

outlined in the previous section), the behaviour is inherently eclectic because it includes a variety of apps and services that can be engaged in. For instance, social networking can be the use of traditional SNSs, such as Facebook. Facebook can be considered an 'egocentric' SNS (rather than the previously more common virtual communities that focused on shared interests between members) because it allows individuals to represent themselves using individual profiles and wall posts. These can contain text and audiovisual content, whilst connecting to friends who often appear as real-life friends and acquaintances, given individuals' main motivation to use SNSs such as Facebook is to maintain their connections (Kuss & Griffiths, 2011).

In 2016, the most popular SNS was Facebook with 1712 million active users (Statista, 2017[2]). Facebook has long established its supremacy in terms of active members, with membership numbers steadily increasing by 17 to 20 per cent annually (Zephoria, 2017). Facebook is a very active network. Every minute, 510,000 comments are posted; 293,000 statuses are updated; and 136,000 photos are uploaded, whilst the average user spends approximately 20 min daily on the site (Zephoria, 2017).

Over the past few years, new networks have emerged that have gradually risen in popularity, particularly amongst younger generations. Instagram was launched in 2010 as a picture-sharing SNS, claiming to "allow you to experience moments in your friends' lives through pictures as they happen" (Instagram, 2016). In 2016, Instagram had 500 million active users (Statista, 2017[2]). Snapchat was launched in 2011 (Walker, 2016) as an SNS that allows users to message and connect with others using a



smartphone through texts, videos and calls. Snapchat is different from other networks in that it has an inherently ephemeral nature, whereby any messages are automatically deleted shortly after the receiver has viewed them, allowing an increased experience of perceived privacy and safety online (Moreau, 2017). However, teenagers are especially aware of the transitory nature of Snapchat messages and, therefore, take screenshots and keep them stored on their mobile phones or in the cloud, simply to have proof of conversations and visuals spread on this medium. The privacy advantage of the medium is thereby countered. Snapchat had 200 million users in 2016 (Statista, 2017[2]). In the same year, Snapchat was the most popular SNS among 13 to 24-year-old adolescents and adults in the USA, with 72 per cent of this group using them, followed by 68 per cent Facebook users, and 66 per cent Instagram users (Statista, 2017[4]). The popularity of Snapchat – particularly among young users – suggests the SNS landscape is changing in this particular demographic, with users being more aware of potential privacy risks, enjoying the lack of social pressure on Snapchat, as well as the increased amount of control over who is viewing their ephemeral messages. However, it could also be the case that this may lead to the complete opposite by increasing the pressure to be online all the time because individuals risk missing the connecting thread in a continuing stream of messages

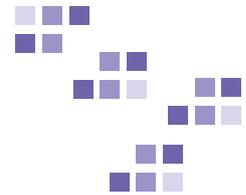
within an online group. This may be especially the case in Snapchat groups/rooms created for adolescents in school or other contexts. This can lead to decreasing concentration during preparation tasks for school at home, and may lead to constant distraction because of the pressure to follow what is going on, as well as FOMO. From a business point of view, Snapchat has been particularly successful due to its novel impermanent approach to messaging, with Facebook founder Mark Zuckerberg offering \$3 billion to buy the SNS, which has been declined by Evan Spiegel, Snapchat's CEO and co-founder (Walker, 2016). These facts suggest the world of traditional SNS is changing.

Social networking can be instant messaging. The most popular messaging services to date are WhatsApp and Facebook Messenger, with 1 billion active users each (Statista, 2017[2]). WhatsApp is a mobile messaging site that allows users to connect to one another via messages and calls using their internet connection and mobile data (rather than minutes and texts on their phones). It was bought by Facebook in 2014 for \$22 billion (Frier, 2017), leading to controversies about Facebook's data sharing practices (such as Whatsapp phone numbers being linked with Facebook profiles), and the European Commission fining Facebook (Robinson, 2017). In addition to WhatsApp, Facebook owns its own messaging system, which is arguably the best example of the convergence between

traditional SNS use and messaging, and which functions as an app on smartphones separate from the actual Facebook application.

Social networking can be microblogging. Microblogging is a form of more traditional blogging, which could be considered a personal online diary. Alternatively, microblogging can also be viewed as an amalgamation of blogging and messaging, in such a way that messages are short and intended to be shared with the writer's audience (typically consisting of 'followers' rather than 'friends' found on Facebook and similar SNSs). A popular example of a microblogging site is Twitter, which allows only 140 characters per Tweet. In 2016, Twitter had 313 million active users (Statista, 2017[2]), making it the most successful microblogging site to date. Twitter has become particularly used as a political tool with examples including its important role in the Arab Spring anti-government protests (Hermida, Lewis & Zamith, 2017), as well as its extensive use by US President Donald Trump during and following his presidential campaign (Ulanoff, 2017). In addition to assessing the microblogging within politics, research has also examined the microblogging about health issues (Liu, Ho & Lu, 2017).

Social networking can be gaming. Gaming can arguably be considered an element of social networking if the gaming involves connecting with people (that is, via playing together and communicating using channels within games). It has





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In the present day and age, individuals have come to live increasingly mediated lives. Nowadays, social networking does not necessarily refer to what we do, but to who we are and how we relate to one another. Social networking can arguably be considered a way of being and relating, and this is supported by empirical research.

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been argued that large-scale internet-enabled games (that is, Massively Multiplayer Role-Playing Games [MMORPGs]), such as the popular World of Warcraft, are inherently social games situated in enormous virtual worlds populated by thousands of gamers (Kuss, 2013; Cole & Griffiths, 2007), providing gamers various channels of communication and interaction, and allowing for the building of relationships that may extend beyond the game worlds (Kuss, 2013[2]). By their very nature, games such as MMORPGs are “particularly good at simultaneously tapping into what is typically formulated as game/not game, social/instrumental, real/virtual. And this mix is exactly what is evocative and hooks many people. The innovations they produce there are a result of MMOGs as vibrant sites of culture” (Taylor, 2016). Not only do these games offer the possibility of communication, but they provide a basis for strong bonds between individuals when they unite through shared activities and goals, and have been shown to facilitate and increase intimacy and relationship quality in couples (Aron et al., 2000) and online gamers (Cole & Griffiths, 2007; Kuss, 2013[2]). In addition to inherently social MMORPGs, Facebook-enabled games – such as Farmville or Texas HoldEm Poker – can be subsumed under the social networking umbrella if they are being used in order to connect with others (rather than for solitary gaming purposes) (Griffiths, 2013; 2014).

Social networking can be online dating. Presently, there are many online dating websites available, which offer their members the opportunity to become part of virtual communities, and they have been especially designed to meet the members’ romantic and relationship-related needs and desires (Finkel et al., 2012). On these sites, individuals are encouraged to create individual public profiles, to interact and communicate with other members with the shared interest of finding dates and/or long-term relationships, therewith meeting the present authors’ definition of an SNS. In that way, online dating sites can be considered SNSs. However, these profiles are often semi-public, with access granted only to other members of these networks and/or subscribers to the said online dating services. According to the US think tank Pew Research Center’s Internet Project (Smith & Duggan, 2017), 38 per cent of singles in the USA have made use of online dating sites or mobile dating applications. Moreover, nearly 60 per cent of internet users think that online dating is a good way to meet people, and the percentage of individuals who have met their romantic partners online has seen a two-fold increase over recent years (Smith & Duggan, 2017). These data suggest online dating is becoming increasingly popular, contributing to the appeal of online SNSs for many users across the generations. However, it can also be argued that online dating sites such as Tinder may be less a medium for ‘long-term relationships’, given

that Tinder use can lead to sexual engagement. This suggests the uses and gratifications perspective underlying Tinder use points more in the direction of other motives, such as physical and sexual aspirations and needs, rather than purely romance.

This section has argued that social networking activities can comprise a wide variety of usage motivations and needs, ranging from friendly connection over gaming to romantic endeavours, further strengthening SNS’ natural embeddedness in many aspects of users’ everyday lives. From a social networking addiction perspective, this may be similar to the literature on internet addiction, which often delineates between addictions to specific applications on the internet (such as gaming, gambling, shopping, sex) and more generalised internet addiction (for example, concerning problematic overuse of the internet comprising many different applications) (Griffiths & Szabo, 2014; Ponte, Szabo & Griffiths, 2015).

### **Social networking is a way of being**

In the present day and age, individuals have come to live increasingly mediated lives. Nowadays, social networking does not necessarily refer to what we do, but to who we are and how we relate to one another. Social networking can arguably be considered a way of being and relating, and this is supported by empirical research. A younger generation of scholars has grown up in a world that has been reliant



Teenagers particularly appear to have subscribed to the cultural norm of continual online networking. They create virtual spaces which serve their need to belong, as there appear to be increasingly limited options of analogous physical spaces due to parents' safety concerns.

on technology as an integral part of their lives, making it impossible to imagine life without being connected. This has been referred to as an 'always on' lifestyle: "It's no longer about on or off really. It's about living in a world where being networked to people and information wherever and whenever you need it is just assumed" (Boyd, 2012). This has two important implications. First, being 'on' has become the status quo. Second, there appears to be an inherent understanding or requirement in today's technology-loving culture that one needs to engage in online social networking in order not to miss out, to stay up to date and to connect. Boyd (2012) herself refers to needing to go on a "digital sabbatical" in order not to be on, to take a vacation from connecting, with the caveat that this means still engaging with social media, but deciding which messages to respond to.

In addition to this, teenagers particularly appear to have subscribed to the cultural norm of continual online networking. They create virtual spaces which serve their need to belong, as there appear to be increasingly limited options of analogous physical spaces due to parents' safety concerns (Boyd, 2014). Being online

is viewed as safer than roaming the streets and parents often assume using technology in the home is normal and healthy, as stated by a psychotherapist treating adolescents presenting with the problem of internet addiction: "Use of digital media is the culture of the household and kids are growing up that way more and more" (Kuss & Griffiths, 2015). Interestingly, recent research has demonstrated that sharing information on social media increases life satisfaction and loneliness for younger adult users, whereas the opposite was true for older adult users (Teo & Lee, 2016), suggesting that social media use and social networking are used and perceived very differently across generations. This has implications for social networking addiction because the context of excessive social networking is critical in defining someone as an addict, and habitual use by teenagers might be pathologised using current screening instruments when in fact the activity – while excessive – does not result in significant detriment to the individual's life (Griffiths, 2010).

SNS use is also driven by a number of other motivations. From a uses and gratifications perspective, these include information seeking (that is, searching for specific

information using SNSs), identity formation (that is, using SNSs as a means of presenting oneself online, often more favourably than offline) (Zhao, Grasmuck & Martin, 2008), and entertainment (that is, using SNSs to experience fun and pleasure) (Barker, 2009). In addition to this, there are the motivations such as voyeurism (Boyd, 2008) and cyberstalking (Dressing et al., 2014) that could have detrimental impacts on individuals' health and wellbeing as well as their relationships.

It has also been claimed that social networking meets basic human needs as initially described in Maslow's hierarchy of needs (Maslow, 1943). According to this theory, social networking meets the needs of safety, association, estimation and self-realisation (Riva, Wiederhold & Cipresso, 2016). Safety needs are met by social networking being customisable with regards to privacy, allowing the users to control who to share information with. Associative needs are fulfilled through the connecting function of SNSs, allowing users to 'friend' and 'follow' like-minded individuals. The need to estimate is met by users being able to 'gather' friends and 'likes', and compare oneself to others, and is therefore related to Maslow's need



Photo: Pexels/Cottonbro

There is a growing scientific evidence base to suggest excessive SNS use may lead to symptoms traditionally associated with substance-related addictions. These symptoms have been described as salience, mood modification, tolerance, withdrawal, relapse and conflict with regards to behavioural addictions.



of esteem. Finally, the need for self-realisation, the highest attainable goal that only a small minority of individuals are able to achieve, can be reached by presenting oneself in a way one wants to present oneself, and by supporting ‘friends’ on those SNSs who require help. Accordingly, social networking taps into very fundamental human needs by offering the possibilities of social support and self-expression (Andreassen, 2015). This may offer an explanation for the popularity of and relatively high engagement with SNSs in today’s society. However, the downside is that high engagement and being always ‘on’ or engaged with technology has been considered problematic and potentially addictive in the past (Beutel, 2011). But if being ‘always on’ can be considered the status quo and most individuals are ‘on’ most of the time, where does this leave problematic use or addiction? The next section considers this question.

**Individuals can become addicted to using SNSs**

There is a growing scientific evidence base to suggest excessive SNS use may lead to symptoms traditionally associated with substance-related addictions (Kuss & Griffiths, 2011; Andreassen, 2015). These symptoms have been described as salience, mood modification, tolerance, withdrawal, relapse and conflict with regards to behavioural addictions (Griffiths, 2005), and have been validated in the context of the internet addiction components model (Kuss et al., 2014). For a small minority of individuals, their use of SNSs may become the single most

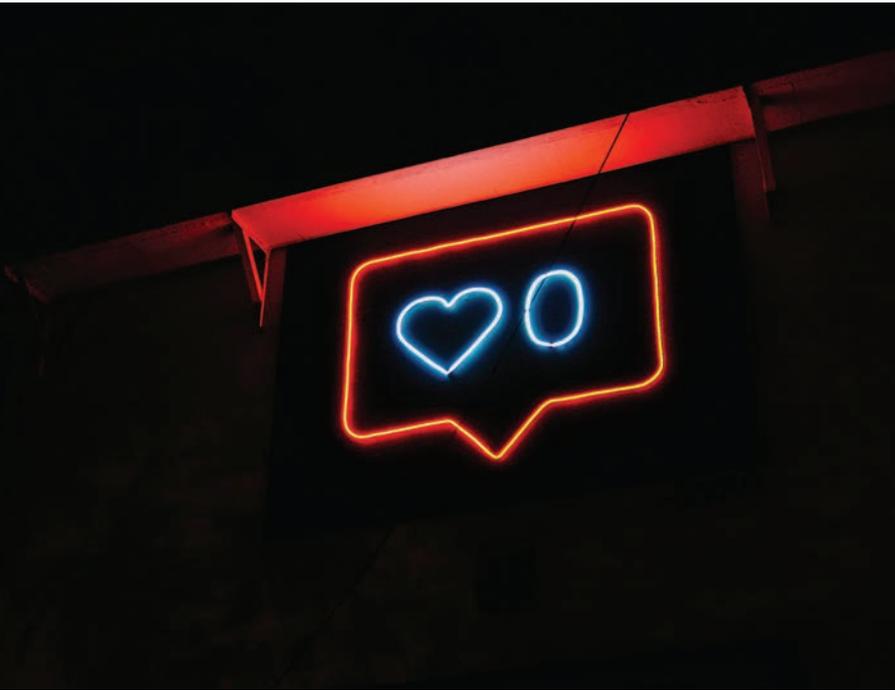


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important activity that they engage in, leading to a preoccupation with SNS use (salience). The activities on these sites are then being used in order to induce mood alterations, pleasurable feelings or a numbing effect (mood modification). Increased amounts of time and energy are required to be put into engaging with SNS activities in order to achieve the same feelings and state of mind that occurred in the initial phases of usage (tolerance). When SNS use is discontinued, addicted individuals will experience negative psychological and sometimes physiological symptoms (withdrawal), often leading to a reinstatement of the problematic behaviour (relapse). Problems arise as a consequence of the engagement in the problematic behaviour, leading to intrapsychic conflicts (conflicts within the individual often including a subjective loss of control) and interpersonal conflicts (problems with the immediate social environment including relationship problems and work and/or education being compromised).

Whilst using 'addiction' terminology in this paper, the

current authors note that there is much controversy within the research field concerning both the possible overpathologising of everyday life (Billieux et al., 2015; Kardefelt-Winther et al., 2017) as well as the most appropriate term for the phenomenon. On the one hand, current behavioural addiction research tends to be correlational and confirmatory in nature and is often based on population studies rather than clinical samples in which psychological impairments are observed (Billieux et al., 2015). Additional methodological problems are outlined below. On the other hand, in the present paper, the authors do not discriminate between the label addiction, compulsion, problematic SNS use, or other similar labels used because these terms are being used interchangeably by authors in the field. Nevertheless, when referring to 'addiction', the present authors refer to the presence of the above stated criteria, as these appear to hold across both substance-related as well as behavioural addictions (Griffiths, 2005) and indicate the requirement of significant impairment and distress on behalf

of the individual experiencing it in order to qualify for using clinical terminology (American Psychiatric Association, 2000), such as the 'addiction' label.

The question then arises as to what it is that individuals become addicted to. Is it the technology or is it more what the technology allows them to do? It has been argued previously (Kuss & Griffiths, 2015; 2012) that the technology is but a medium or a tool that allows individuals to engage in particular behaviours, such as social networking and gaming, rather than being addictive per se. This view is supported by media scholars: "To an outsider, wanting to be always-on may seem pathological. All too often it's labelled an addiction. The assumption is that we're addicted to the technology. The technology doesn't matter. It's all about the people and information" (Boyd, 2012). Following this thinking, one could claim that it is not an addiction to the technology, but to connecting with people, and the good feelings that 'likes' and positive comments of appreciation can produce. Given that connection is the key function of SNSs as indicated above, it appears that 'social networking addiction' may be considered an appropriate denomination of this potential mental health problem.

There are a number of models which offer explanations as to the development of SNS addiction (Turel & Serenko, 2012). According to the cognitive-behavioural model, excessive social networking is the consequence of maladaptive cognitions and is exacerbated through a number of external issues, resulting in (continued page 26)

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addictive use. The social skill model suggests individuals use SNSs excessively as a consequence of low self-presentation skills and preference for online social interaction over face-to-face communication, resulting in addictive SNS use (Turel & Serenko, 2012). With respect to the sociocognitive model, excessive social networking develops as a consequence of positive outcome expectations, internet self-efficacy, and limited internet self-regulation, leading to addictive SNS use (Turel & Serenko, 2012). It has furthermore been suggested that SNS use may become problematic when individuals use it in order to cope with everyday problems and stressors, including loneliness and depression (Xu & Tan, 2021). Moreover, it has been contended that excessive SNS users find it difficult to communicate face-to-face, and social media use offers a variety of immediate rewards, such as self-efficacy and satisfaction, resulting in continued and increased use, with the consequence of exacerbating problems, including neglecting offline relationships and problems in professional contexts. The resultant depressed moods are then dealt with by continued engagement in SNSs, leading to a vicious cycle of addiction (Griffiths, Kuss & Demetrovics, 2014). Cross-cultural research including 10,930 adolescents from six European countries (Greece, Spain, Poland, the Netherlands, Romania and Iceland) furthermore showed that using SNS for two or more hours a day was related to internalising problems and decreased academic

performance and activity (Tsitskia et al., 2014). In addition, a study using a sample of 920 secondary school students in China indicated neuroticism and extroversion predicted SNS addiction, clearly differentiating individuals who experience problems as a consequence of their excessive SNS use from those individuals who used games or the internet in general excessively (Wang et al., 2015). The study thus further contributed to the contention that SNS addiction appears to be a behavioural problem separate from the more commonly researched gaming addiction. In a study using a relatively small representative sample of the Belgian population (n = 1000), results suggested 6.5 per cent were using SNSs compulsively, with this group having lower scores on measures of emotional stability and agreeableness, conscientiousness, perceived control and self-esteem, and higher scores on loneliness and depressive feelings (De Cock et al., 2014).

### Facebook addiction is only one example of SNS addiction

Over the past few years, research in the SNS addiction field has largely focused on a potential addiction to using Facebook specifically, rather than other SNSs. However, recent research suggests individuals may develop addiction-related problems as a consequence of using other SNSs, such as Instagram (Donnelly & Kuss, 2016). It has been claimed that users may experience gratification through sharing photos on Instagram, similar to the gratification they experience when

using Facebook, suggesting that the motivation to share photos can be explained by uses and gratifications theory (Donnelly & Kuss, 2016; Malik, Dhir & Nieminen, 2016). This may also be the reason individuals have been found to be less likely to experience addiction-related symptoms when using Twitter in contrast to Instagram (Malik, Dhir & Nieminen, 2016). In addition to the gratification received through photo sharing, these websites also allow people to explore new identities (Turkel, 1995), which may be considered to contribute to gratification, as supported by previous research (Song et al., 2004). Research has also suggested that Instagram use in particular appears to be potentially addictive in young UK adults (Donnelly & Kuss, 2016), offering further support for the contention that Facebook addiction is only one example of SNS addiction.

Other than the presence and possible addictive qualities of SNSs other than Facebook, it has been contended that the respective activities which take place on these websites need to be considered when studying addiction (Griffiths, 2012). For instance, Facebook users can play games such as Farmville (Griffiths, 2010), gamble online (King, Delfabbro & Griffiths, 2010), watch videos, share photos, update their profiles and message their friends (Kuss & Griffiths, 2011). Other researchers have moved beyond the actual website use that is referred to in these types of addictions, and specifically focused on the main activities individuals engage in, referring to constructs such as 'e-communication



addiction’ (Latif et al., 2016). It has also been claimed the term ‘Facebook addiction’ is already obsolete as there are different types of SNSs that can be engaged in and different activities that can take place on these SNSs (Griffiths, 2012). Following this justified criticism, researchers who had previously studied Facebook addiction specifically (Andreassen et al., 2012) have now turned to studying SNS addiction more generally instead (Andreassen et al., 2016), demonstrating the changing definitional parameters of social networking in this evolving field of research.

### FOMO may be part of SNS addiction

Recent research (Oberst et al., 2017; Buglass et al., 2017) has suggested that high engagement in social networking is partially due to what has been named the ‘fear of missing out’ (FOMO). FOMO is “a pervasive apprehension that others might be having rewarding experiences from which one is absent” (Pryzbylski et al., 2013). Higher levels of FOMO have been associated with greater engagement with Facebook, lower general mood, lower wellbeing and lower life satisfaction, mixed feelings when using social media, as well as inappropriate and dangerous SNS use (such as in university lectures or whilst driving) (Pryzbylski et al., 2013). In addition to this, research (Gil, Chamarro & Oberst, 2016) suggests that FOMO predicts problematic SNS use and is associated with social media addiction (Al-Menayes, 2016), as measured with a scale adapted

from the Internet Addiction Test (Young, 1998). It has been debated whether FOMO is a specific construct, or simply a component of relational insecurity, as observed for example with the attachment dimension of preoccupation with relationships in research into problematic internet use (Schimmenti et al., 2014).

In one study using 5280 social media users from several Spanish-speaking Latin-American countries (Oberst et al., 2017), it was found that FOMO predicts negative consequences of maladaptive SNS use. In addition, this study also found that the relationship between psychopathology (as operationalised by anxiety and depression symptoms and assessed via the Hospital Anxiety and Depression Scale) and negative consequences of SNS use were mediated by FOMO, emphasising the importance of FOMO in the self-perceived consequences of high SNS engagement. Moreover, other research (Buglass et al., 2017) using 506 UK Facebook users has found that FOMO mediates the relationship between high SNS use and decreased self-esteem. Research with psychotherapists working with clients seeking help for their internet use-related behaviours also suggested that young clients “fear the sort of relentlessness of on-going messaging (...). But concurrently with that is an absolute terror of exclusion” (Kuss & Griffiths, 2015). Taken together, these findings suggest FOMO may be a significant predictor or possible component of potential SNS addiction, a

contention that requires further consideration in future research. Further work is needed into the origins of FOMO (both theoretically and empirically), as well as research into why some SNS users are prone to FOMO and develop signs of addictions while others do not.

### Smartphone addiction may be part of SNS addiction

Over the last decade, research assessing problematic and possibly addictive mobile phone use (including smartphones) has proliferated (Lopez-Fernandez, 2015), suggesting some individuals may develop addiction-related problems as a consequence of their mobile phone use. Recent research has suggested problematic mobile phone use is a multifaceted condition, with dependent use being one of four possible pathways, in addition to dangerous, prohibited, and financially problematic use (Billieux et al., 2015). According to the pathway model, an addictive pattern of mobile phone use is characterised by the use of specific applications, including calls, instant messaging, and the use of social networks. This suggests that rather than being an addictive medium per se, mobile technologies including smartphones and tablets are media that enable the engagement in potentially addictive activities, including SNS use. Put another way, it could be argued that mobile phone addicts are no more addicted to their phones than alcoholics are addicted to bottles.

Similarly, it has been argued previously that individuals do not

"We have to develop strategies to specifically target girls much better because there appears a huge gap. Epidemiologically, they are a very important group, but we're not getting them into consultation and treatment."



become addicted to the internet per se, but to the activities they engage in on the internet, such as gaming (Kuss & Griffiths, 2012) or SNS use (Kuss & Griffiths, 2011). With the advent and ubiquity of mobile technologies, this supposition is more pertinent than ever. Using SNSs is a particularly popular activity on smartphones, with around 80 per cent of social media used via mobile technologies (Marketing Land, 2017). For instance, approximately 75 per cent of Facebook users access the SNS via their mobile phones (Statista, 2017[5]). Therefore, it can be suggested that smartphone addiction may be part of SNS addiction. Previous research (Andreassen et al., 2016) supported this supposition by specifically indicating that social networking is often engaged in via phones, which may contribute to its addictive potential. Accordingly, it is necessary to move towards nosological precision, for the benefit of both individuals seeking help in professional settings, as well as research that will aid developing effective treatment approaches for those in need.

### Nomophobia may be part of SNS addiction

Related to both FOMO and mobile phone addiction is the construct of nomophobia. Nomophobia has been defined as "no mobile phone phobia"; that is, the fear of being without one's mobile phone (Bragazzi & Del Puente, 2014). Researchers have called for nomophobia to be included in the DSM-5, and the following criteria

have been outlined to contribute to this problem constellation: regular and time-consuming use, feelings of anxiety when the phone is not available, "ringxiety" (that is, repeatedly checking one's phone for messages, sometimes leading to phantom ring tones), constant availability, preference for mobile communication over face-to-face communication, and financial problems as a consequence of use (Bragazzi & Del Puente, 2014). Nomophobia is inherently related to a fear of not being able to engage in social connections, and a preference for online social interaction (which is the key usage motivation for SNSs (Kuss & Griffiths, 2011)), and has been linked to problematic internet use and negative consequences of technology use (Caplan, 2003), further pointing to a strong association between nomophobia and SNS addiction symptoms.

Using mobile phones is understood as leading to alterations in everyday life habits and perceptions of reality, which can be associated with negative outcomes, such as impaired social interactions, social isolation, as well as both somatic and mental health problems, including anxiety, depression and stress (Bragazzi & Del Puente, 2014; Kuss et al., 2017). Accordingly, nomophobia can lead to using the mobile phone in an impulsive way (Bragazzi & Del Puente, 2014), and may thus be a contributing factor to SNS addiction as it can facilitate and enhance the repeated use of SNSs, forming habits that may increase the general vulnerability to the experience of addiction-related

symptoms as a consequence of problematic SNS use.

### There are sociodemographic differences in SNS addiction

Research suggests there are sociodemographic differences among those addicted to social networking. In terms of gender, psychotherapists treating technology-use related addictions suggest SNS addiction may be more common in female rather than male patients, and describe this difference based on usage motivations:

*"(...) girls don't play role-playing games primarily, but use social forums excessively, in order to experience social interaction with other girls and above all to feel understood in their very individual problem constellations, very different from boys, who want to experience narcissistic gratification via games. This means the girls want direct interaction. They want to feel understood. They want to be able to express themselves. (...) we're getting girls with clinical pictures that are so pronounced that we have to admit them into inpatient treatment. (...) We have to develop strategies to specifically target girls much better because there appears a huge gap. Epidemiologically, they are a very important group, but we're not getting them into consultation and treatment."*  
(Kuss & Griffiths, 2015)

This quote highlights two important findings. First, in the age group of 14 to 16 years, girls appear to show a higher prevalence of addictions to the internet and



Photo: Pexels/Mikotoraw

SNSs, as found in a representative German sample (Rumpf et al., 2014), and second, teenage girls may be underrepresented in clinical samples. Moreover, another study on a representative sample demonstrated that the distribution of addiction criteria varies between genders and that extroversion is a personality trait differentiating between intensive and addictive use (Müller et al., 2016).

Cross-sectional research is less conclusive as regards the contribution of gender as a risk factor for SNS addiction. A higher prevalence of Facebook addiction was found in a sample of 423 females in Norway using the Facebook Addiction Scale (Andreassen et al., 2012). Among Turkish teacher candidates, the trend was reversed, suggesting males were significantly more likely to be addicted to using Facebook (Cam & Isbulan, 2012) as assessed via an adapted version

of Young's Internet Addiction Test (Young, 1998).

In other studies, no relationship between gender and addiction was found. For instance, using a version of Young's Internet Addiction Test modified for SNS addiction with 277 young Chinese smartphone users, gender did not predict SNS addiction (Wu & Cheng, 2007). Similarly, another study assessing SNS dependence in 194 SNS users did not find a relationship between gender and SNS dependence (Turel & Serenko, 2012). In a study of 447 university students in Turkey, Facebook addiction was assessed using the Facebook Addiction Scale, but did not find a predictive relationship between gender and Facebook addiction (Koc & Gulyagci, 2013).

Furthermore, the relationships between gender and SNS addiction may be further complicated by other variables. For instance, recent research by Oberst

et al. (2017) found that only for females, anxiety and depression symptoms significantly predicted negative consequences of SNS use. The researchers explained this difference by suggesting that anxiety and depression experience in girls may result in higher SNS usage, implicating cyclical relationships in that psychopathological symptom experience may exacerbate negative consequences due to SNS use, which may then negatively impact upon perceived anxiety and depression symptoms.

In terms of age, studies indicate that younger individuals may be more likely to develop problems as a consequence of their excessive engagement with online SNSs (Echeburua & de Corral, 2010). Moreover, research suggests perceptions as to the extent of possible addiction appear to differ across generations. A recent study by (Latif et al., 2016) found that



parents view their adolescents' online communication as more addictive than the adolescents themselves perceive it to be. This suggests that younger generations significantly differ from older generations in how they use technology, what place it has in their lives and how problematic they may experience their behaviours to be. It also suggests that external accounts (such as those from parents in the case of children and adolescents) may be useful for clinicians and researchers in assessing the extent of a possible problem as adolescents may not be aware of the potential negative consequences that may arise as a result of their excessive online communication use. Interestingly, research also found that mothers are more likely to view their adolescents' behaviour as potentially more addictive relative to fathers, whose perception tended to be that of online communication use being less of a problem (Latif et al., 2016). Taken together, although there appear to be differences in SNS addiction with regards to sociodemographic characteristics of the samples studied, such as gender, future research is required in order to clearly indicate where these differences lie specifically, given that much of the current research appears somewhat inconclusive.

### There are methodological problems with research to date

Given that the research field is relatively young, studies investigating SNS addiction unsurprisingly suffer from a number of methodological

problems. Currently, there are few estimations of the prevalence of social networking addiction with most studies comprising small and unrepresentative samples (Kuss & Griffiths, 2011). As far as the authors are aware, only one study (in Hungary) has used a nationally representative sample. The study by Bányai and colleagues (2017) reported that 4.5 per cent of 5961 adolescents (mean age 16 years old) were categorised as 'at-risk' of social networking addiction using the Bergen Social Media Addiction Scale. However, most studies investigating social networking addiction use various assessment tools, different diagnostic criteria as well as varying cut-off points, making generalisations and study cross-comparisons difficult (Griffiths, Kuss & Demetrovics, 2014).

Studies have made use of several different psychometric scales and six of these are briefly described below. The Addictive Tendencies Scale (ATS) (Wilson, Fornasier & White, 2010) is based on addiction theory and uses three items, salience, loss of control, and withdrawal, whilst viewing SNS addiction as a dimensional construct. The Bergen Facebook Addiction Scale (BFAS) (Andreassen et al., 2012) is based on Griffiths' (2005) addiction components, using a polythetic scoring method (scoring 3 out of 4 on each criterion on a minimum of four of the six criteria) and has been shown to have good psychometric properties. The Bergen Social Media Addiction Scale is similar to the BFAS in that 'Facebook' is replaced with 'Social Media' (Andreassen, Pallesen & Griffiths, 2016). The E-Communication

Addiction Scale (Latif et al., 2016) includes 22 questions with four subscales scored on a five-point Likert scale – addressing issues such as lack of self-control (cognitive), e-communication use in extraordinary places, worries and control difficulty (behavioural) – and it has been found to have a high internal consistency, measuring e-communication addiction across different severity levels, ranging from very low to very high.

The Facebook Dependence Questionnaire (FDQ) (Wolniczak et al., 2013) uses eight items based on the Internet Addiction Scale (Echeburúa, 1999), with the endorsement of five out of eight criteria signifying addiction to using Facebook. The Social Networking Addiction Scale (SNWAS) (Turel & Serenko, 2012) is a five-item scale which uses Charlton and Danforth's engagement vs. addiction questionnaire (Charlton & Danforth, 2007; 2010) as a basis, viewing SNS addiction as a dimensional construct. This is by no means an exhaustive list, but those assessment tools highlighted here simply demonstrate that the current social networking addiction scales are based on different theoretical frameworks and use various cut-offs. This precludes researchers from making cross-study comparisons, and severely limits the reliability of current SNS epidemiological addiction research.

Taken together, the use of different conceptualisations, assessment instruments, and cut-off points decreases the reliability of prevalence estimates because it hampers comparisons across studies, and it also questions the construct validity of SNS addiction.



Accordingly, researchers are advised to develop appropriate criteria that are clinically sensitive to identify individuals who present with SNS addiction specifically, whilst clinicians will benefit from a reliable and valid diagnosis in terms of treatment development and delivery.

## Discussion

In this paper, lessons learned from the recent empirical literature on social networking and addiction have been presented, following on from earlier work (Kuss & Griffiths, 2011) conducted when research investigating SNS addiction was in its infancy. The research presented suggests SNSs have become a way of being, with millions of people around the world regularly accessing SNSs using a variety of devices, including technologies on the go (such as tablets and smartphones), which appear to be particularly popular for using SNSs. The activity of social networking itself appears to be specifically eclectic and constantly changing, ranging from using traditional sites such as Facebook to more socially-based online gaming platforms and dating platforms, all allowing users to connect based on shared interests. Research has shown that there is a fine line between frequent non-problematic habitual use and problematic and possibly addictive use of SNSs, suggesting that users who experience symptoms and consequences traditionally associated with substance-related addictions (such as salience, mood modification, tolerance, withdrawal, relapse and conflict) may be addicted to using SNSs. Research has also indicated that FOMO may contribute to SNS addiction, because individuals who worry about being unable to connect to their networks may develop impulsive checking habits that over time may develop into an addiction.

The same thing appears to hold true for mobile phone use and a fear of being without one's mobile phone (nomophobia), which may be viewed as a medium that enables the engagement in SNSs (rather than being addictive per se). Given that engaging in social networking is a key activity engaged in using mobile technologies, FOMO, nomophobia and mobile phone addiction appear to be associated with SNS addiction, with possible implications for assessment and future research.

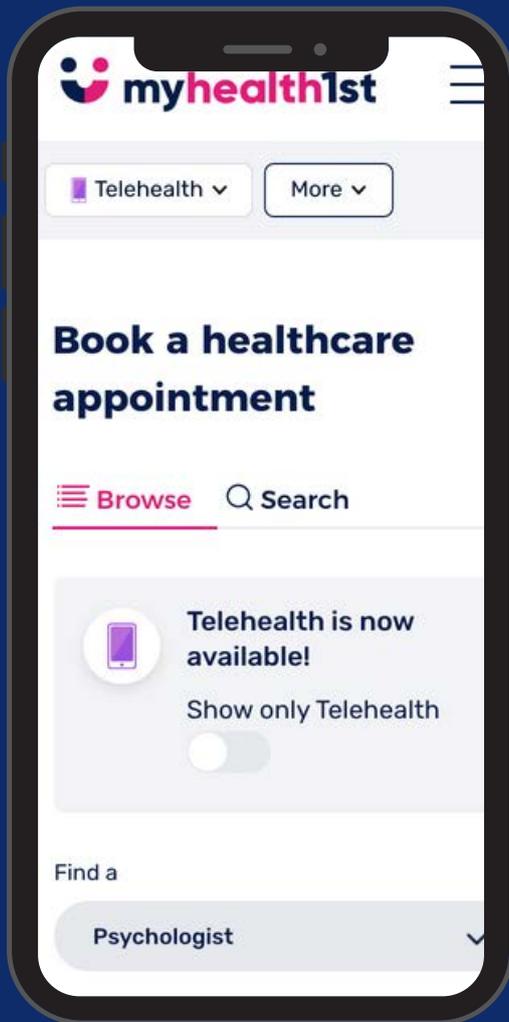
In addition to this, the lessons learned from current research suggest there are sociodemographic differences in SNS addiction. The lack of consistent findings regarding a relationship with gender may be due to different sampling techniques and various assessment instruments used, as well as the presence of extraneous variables that may contribute to the relationships found. All of these factors highlight possible methodological problems of current SNS addiction research (for example, lack of cross-comparisons due to differences in sampling and classification, lack of control of confounding variables), which need to be addressed in future empirical research. In addition to this, research suggests younger generations may be more at risk of developing addictive symptoms as a consequence of their SNS use, whilst perceptions of SNS addiction appear to differ across generations. Younger individuals tend to view their SNS use as less problematic than their parents might, further contributing to the contention that SNS use has become a way of being and is contextual, which must be separated from the experience of actual psychopathological symptoms. The ultimate aim of research must be not to overpathologise everyday

behaviours, but to carry out better quality research as this will help facilitate treatment efforts in order to provide support for those who may need it.

Based on the 10 lessons learned from recent SNS addiction research, the following recommendations are provided. First, researchers are recommended to consider including an assessment of FOMO and/or nomophobia in SNS addiction screening instruments because both constructs appear related to SNS addiction. Second, it is recommended that SNS use is measured across different technologies with which it can be accessed, including mobile and smartphones. It is of fundamental importance to study what kinds of activities are being engaged in online (social networking, gaming and so on), rather than the medium through which these activities are engaged in (desktop computer, tablet, mobile/smartphone). Third, risk factors associated with problematic social networking need to be assessed longitudinally to provide a clearer indication of developmental etiology, and to allow for the design of targeted prevention approaches. Fourth, clinical samples need to be included in research in order to ensure the sensitivity and specificity of the screening instruments developed. Fifth, in terms of treatment, unlike treating substance-related addictions, the main treatment goal should be control rather than abstinence. Arguably, abstinence cannot realistically be achieved in the context of SNS addiction because the internet and social networking have become integral elements of our lives (Kuss & Griffiths, 2011; Turkle, 2013; Boyd, 2014). Rather than discontinuing social networking completely, therapy should focus on establishing controlled SNS use and media awareness (Griffiths, Kuss & Demetrovics, 2014). (continued page 34)



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**Conclusions**

This paper has outlined 10 lessons learned from recent empirical literature on online social networking and addiction. Based on the presented evidence, the way forward in the emerging research field of social networking addiction requires the establishment of consensual nosological precision, so that both researchers and clinical practitioners can work together and establish productive communication between the involved parties that enables reliable and valid assessments of SNS addiction and associated behaviours (such as problematic mobile phone use), and the development of targeted and specific treatment approaches to ameliorate the negative consequences of such disorders.

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**References**

Alabi, O.F. (2013). A survey of Facebook addiction level among selected Nigerian university undergraduates. *New Media Mass Commun*, 10, 70–80.

Al-Menayes, J. (2016). The fear of missing out scale: Validation of the Arabic version and correlation with social media addiction. *Int. J. Appl. Psychol*, 6, 41–46.

American Psychiatric Association. (2000). *Diagnostic and Statistical Manual for Mental Disorders IV*,

Text-Revision; American Psychiatric Association: Washington, DC, USA.

Andreassen, C.S. (2015). Online social network site addiction: A comprehensive review. *Curr. Addict. Rep*, 2, 175–184.

Andreassen, C.S.; Torsheim, T.; Brunborg, G.S.; Pallesen, S. (2012). Development of a Facebook Addiction Scale. *Psychol. Rep*, 110, 1–17.

Andreassen, C.S.; Billieux, J.; Griffiths, M.D.; Kuss, D.J.; Demetrovics, Z.; Mazzoni, E.; Pallesen, S. (2016). The relationship

between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychol. Addict. Behav*, 30, 252–262.

Andreassen, C.S.; Pallesen, S.; Griffiths, M.D. (2016). The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. *Addict. Behav*, 19, 30109–30115.

Aron, A.; Norman, C.C.; Aron, E.N.; McKenna, C.; Heyman, R.E. (2000). Couples' shared participation in novel and arousing activities and experienced relationship quality. *J. Personal. Soc. Psychol*, 78, 273–284.

Bányai, F.; Zsila, Á.; Király, O.; Maraz, A.; Elekes, Z.; Griffiths, M.D.; Andreassen, C.S.; Demetrovics, Z. (2017). Problematic social media use: Results from a large-scale nationally representative adolescent sample. *PLoS ONE*, 12, e0169839.

Barker, V. (2009). Older adolescents' motivations for social network site use: The influence of gender, group identity, and collective self-esteem. *CyberPsychol. Behav*, 12, 209–213.

Beutel, M.E.; Brähler, E.; Gläsmmer, H.; Kuss, D.J.; Wöfling, K.; Müller, K.W. (2011). Regular and problematic leisure-time internet use in the community: Results from a German population-based survey. *Cyberpsychol. Behav. Soc. Netw*, 14, 291–296.

Billieux, J.; Schimmenti, A.; Khazaal, Y.; Maurage, P.; Heeren, A. Are we overpathologizing everyday life? A tenable blueprint for behavioral addiction research. *J. Behav. Addict*. 2015, 4, 119–123.

Billieux, J.; Maurage, P.; Lopez-Fernandez, O.; Kuss, D.J.; Griffiths, M.D. (2015)[2]. Can disordered mobile phone use be

considered a behavioral addiction? An update on current evidence and a comprehensive model for future research. *Curr. Addict. Rep*, 2, 156–162.

Błachnio, A.; Przepiorka, A.; Senol-Durak, E.; Durak, M.; Sherstyuk, L. (2017). The role of personality traits in Facebook and Internet addictions: A study on Polish, Turkish, and Ukrainian samples. *Comput. Hum. Behav*, 68, 269–275.

Boyd, D. (2008). Why youth <3 social network sites: The role of networked publics in teenage social life. In *Youth, Identity, and Digital Media*; Buckingham, D., Ed.; MIT Press: Cambridge, MA, USA; pp. 119–142.

Boyd, D. (2012). Participating in the always-on lifestyle. In *The Social Media Reader*; Mandiberg, M., Ed.; New York University Press: New York, NY, USA.

Boyd, D. (2014). It's Complicated: *The Social Lives of Networked Teens*; Yale University Press: Yale, CT, USA.

Boyd, D.M.; Ellison, N.B. (2008). Social network sites: Definition, history, and scholarship. *J. Comput.-Mediat. Commun*, 13, 210–230.

Bragazzi, N.L.; Del Puente, G. (2014). A proposal for including nomophobia in the new DSM-V. *Psychol. Res. Behav. Manag*, 7, 155–160.

Buglass, S.L.; Binder, J.F.; Betts, L.R.; Underwood, J.D.M. (2017). Motivators of online vulnerability: The impact of social network site use and FOMO. *Comput. Hum. Behav*, 66, 248–255.

Cam, E.; Isbulan, O. (2012). A new addiction for teacher candidates: Social networks. *Turk. Online J. Educ. Technol*, 11, 14–19.

Caplan, S.E. (2003). Preference for online social interaction: A theory of problematic

Internet use and psychosocial well-being. *Commun. Res*, 30, 625–648.

Charlton, J.P.; Danforth, I.D.W. (2007). Distinguishing addiction and high engagement in the context of online game playing. *Comput. Hum. Behav*, 23, 1531–1548.

Charlton, J.P.; Danforth, I.D.W. (2010). Validating the distinction between computer addiction and engagement: Online game playing and personality. *Behav. Inf. Technol*, 29, 601–613.

Cole, H.; Griffiths, M.D. (2007). Social interactions in massively multiplayer online role-playing gamers. *Cyberpsychol. Behav*, 10, 575–583.

De Cock, R.; Vangeel, J.; Klein, A.; Minotte, P.; Rosas, O.; Meerkerk, G.J. (2014). Compulsive use of social networking sites in Belgium: Prevalence, profile, and the role of attitude toward work and school. *CyberPsychol. Behav. Soc. Netw*, 17, 166–171.

Donnelly, E.; Kuss, D.J. (2016). Depression among users of social networking sites (SNSs): The role of SNS addiction and increased usage. *J. Addict. Prev. Med*, 1, 107.

Dressing, H.; Bailer, J.; Anders, A.; Wagner, H.; Gallas, C. (2014). Cyberstalking in a large sample of social network users: Prevalence, characteristics, and impact upon victims. *Cyberpsychol. Behav. Soc. Netw*, 17, 61–67.

Echeburua, E.; de Corral, P. (2010). Addiction to new technologies and to online social networking in young people: A new challenge. *Adicciones*, 22, 91–95.

Echeburúa, E. *Adicciones Sin Drogas?* Desclée de Brouwer: Bilbao, Spain, 1999.

Finkel, E.J.; Eastwick, P.W.; Karney, B.R.; Reis, H.T.; Sprecher, S. (2012). Online dating: A critical analysis from

the perspective of psychological science. *Psychol. Sci. Public Interest*, 13, 3–66.

Frier, S. (2017). Facebook \$22 billion Whatsapp deal buys \$10m in sales. Bloomberg Technology. Available online: <https://www.bloomberg.com/news/articles/2014-10-28/facebook-s-22-billion-whatsapp-dealbuys-10-million-in-sales> (accessed on 27 January 2017).

Gil, F.; Chamorro, A.; Oberst, U. (2016). Addiction to online social networks: A question of "Fear of Missing Out"? *J. Behav. Addict*, 4 (Suppl. S1), 51.

Greenfield, S. (2017). How Facebook addiction is damaging your child's brain: A leading neuroscientist's chilling warning. Available online: <http://www.dailymail.co.uk/femail/article-1172690/How-Facebook-addiction-damaging-childrens-brain-A-leading-neuroscientists-chilling-warning.html> (accessed on 14 March 2017).

Griffiths, M.D. (2005). A "components" model of addiction within a biopsychosocial framework. *J. Subst. Use*, 10, 191–197.

Griffiths, M.D. (2010). Gaming in social networking sites: A growing concern? *World Online Gamb. Law Rep*, 9, 12–13.

Griffiths, M.D. (2012). Facebook addiction: Concerns, criticisms and recommendations. *Psychol. Rep*, 110, 518–520.

Griffiths, M.D. (2013). Adolescent gambling via social networking sites: A brief overview. *Educ. Health*, 31, 84–87.

Griffiths, M.D. (2014). Child and adolescent social gaming: What are the issues of concern? *Educ. Health*, 32, 9–12.

Griffiths, M.D.; Kuss, D.J.; Demetrovics, Z. (2014). Social networking addiction: An overview of preliminary findings.

In *Behavioral Addictions: Criteria, Evidence and Treatment*; Rosenberg, K., Feder, L., Eds.; Elsevier: New York, NY, USA; pp. 119–141.

Griffiths, M.D.; Szabo, A. (2014). Is excessive online usage a function of medium or activity? An empirical pilot study. *J. Behav. Addict*, 3, 74–77.

Hermida, A.; Lewis, S.C.; Zamith, R. (2014). Sourcing the Arab Spring: A case study of Andy Carvin's sources on Twitter during the Tunisian and Egyptian revolutions. *J. Comput.-Mediat. Commun*, 19, 479–499.

Hong, F.-Y.; Huang, D.-H.; Lin, H.-Y.; Chiu, S.-L. (2014). Analysis of the psychological traits, Facebook usage, and Facebook addiction model of Taiwanese university students. *Telemat. Inform*, 31, 597–606.

Instagram. Instagram Press. Available online: <https://www.instagram.com/press> (accessed on 5 August 2016).

Kaplan, A.M.; Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Bus. Horiz*, 53, 59–68.

Kardefelt-Winther, D.; Heeren, A.; Schimmenti, A.; van Rooij, A.; Maurage, P.; Carras, M.; Edman, J.; Blaszczynski, A.; Khazaal, Y.; Billieux, J. (2017). How can we conceptualize behavioural addiction without pathologizing common behaviours? *Addiction*, 118, 13763.

King, D.; Delfabbro, P.; Griffiths, M. (2010). The convergence of gambling and digital media: Implications for gambling in young people. *J. Gambl. Stud*, 26, 175–187.

Koc, M.; Gulyagci,

S. (2013). Facebook addiction among Turkish college students: The role of psychological health, demographic, and usage characteristics. *Cyberpsychol. Behav. Soc. Netw*, 16, 279–284.

Kuss, D.J. (2013). Internet gaming addiction: Current perspectives. *Psychol. Res. Behav. Manag*, 6, 125–137.

Kuss, D.J. (2013)[2]. *For the horde! In how playing World of Warcraft reflects our participation in popular media culture*; LAP LAMBERT Academic Publishing: Saarbrücken, Germany.

Kuss, D.J.; Crook-Rumsey, M.; Sumich, A.; Kibowski, F.; Kanjo, E. (2017). *Problematic mobile phone use and addiction: The roles of psychopathology, mobile phone use and age. Under review*.

Kuss, D.J.; Griffiths, M.D. (2011). Online

social networking and addiction—A review of the psychological literature. *Int. J. Environ. Res. Public Health*, 8, 3528–3552.

Kuss, D.J.; Griffiths, M.D. (2012). Internet gaming addiction: A systematic review of empirical research. *Int. J. Ment. Health Addict*, 10, 278–296.

Kuss, D.J.; Griffiths, M.D. (2015). *Internet addiction in psychotherapy*; Palgrave: London, UK.

Kuss, D.J.; Shorter, G.W.; van Rooij, A.J.; Griffiths, M.D.; Schoenmakers, T. (2014). Assessing Internet addiction using the parsimonious Internet addiction components model—A preliminary study. *Int. J. Ment. Health Addict*, 12, 351–366.

Latif, H.; Uckun, C.G.; Gökkaya, Ö.; Demir, B. (2016). Perspectives of generation 2000

and their parents on e-communication addiction in Turkey. *Int. J. Hum. Soc. Sci. Invent*, 5, 51–61.

Lévy, P. (1997). *Collective intelligence: Mankind's emerging world in cyberspace*; Perseus: Cambridge, MA, USA.

Liu, J.S.; Ho, M.H.-C.; Lu, L.Y.Y. (2017). Recent themes in social networking service research. *PLoS ONE*, 12, e0170293.

Lopez-Fernandez, O.; Kuss, D.J.; Griffiths, M.D.; Billieux, J. (2015). The conceptualization and assessment of problematic mobile phone use. In *Encyclopedia of Mobile Phone Behavior*; Yan, Z., Ed.; IGI Global: Hershey, PA, USA; pp. 591–606.

Malik, A.; Dhir, A.; Nieminen, M. (2016). Uses and gratifications of digital photo sharing

on Facebook. *Telemat. Inform*, 33, 129–138.

Marketing Land. Nearly 80 percent of social media time now spent on mobile devices. Available online: <http://marketingland.com/facebook-usage-accounts-1-5-minutes-spent-mobile-171561> (accessed on 29 January 2017).

Maslow, A.H. (1943). A theory of human motivation. *Psychol. Rev.*, 50, 370–396.

Milgram, S. (1967). The small world problem. *Psychol. Today*, 2, 60–67.

Moreau, E. What is Snapchat? An intro to the popular ephemeral app. Lifewire. Available online: <https://www.lifewire.com/what-is-snapchat-3485908> (accessed on 27 January 2017).

Müller, K.W.; Dreier, M.; Duven, E.; Giralt, S.; Beutel, M.E.; Wölfling,

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- K. (2016). A hidden type of Internet Addiction? Intense and addictive use of social networking sites in adolescents. *Comput. Hum. Behav.*, 55, 172–177.
- Oberst, U.; Wegmann, E.; Stodt, B.; Brand, M.; Chamorro, A. (2017). Negative consequences from heavy social networking in adolescents: The mediating role of fear of missing out. *J. Adolesc.*, 55, 51–60.
- Osuagwu, N.G. (2009) *Facebook addiction—The life & times of social networking addicts*; Ice Cream Melts: Norwich, CT, USA.
- Pontes, H.M.; Szabo, A.; Griffiths, M.D. The impact of internet-based specific activities on the perceptions of internet addiction, quality of life, and excessive usage: A cross-sectional study. *Addict. Behav. Rep.*, 1, 19–25.
- Przybylski, A.K.; Murayama, K.; DeHaan, C.R.; Gladwell, V. (2013). Motivational, emotional, and behavioural correlates of fear of missing out. *Comput. Hum. Behav.*, 29, 1841–1848.
- Riva, G.; Wiederhold, B.K.; Cipresso, P. (2016). Psychology of social media: From technology to identity. In *The Psychology of Social Networking: Personal Experience in Online Communities*; Riva, G., Wiederhold, B.K., Cipresso, P., Eds.; De Gruyter Open: Warsaw, Poland; pp. 1–11.
- Robinson, D. Facebook faces EU fine over WhatsApp data sharing. *The Financial Times*. 2017. Available online: <https://www.ft.com/content/f652746c-c6a4-11e6-9043-7e34c07b46ef> (accessed on 27 January 2017).
- Rumpf, H.J.; Vermulst, A.A.; Bischof, A.; Kastirke, N.; Gürtler, D.; Bischof, G.; Meerkerk, G.J.; John, U.; Meyer, C. (2014). Occurrence of Internet addiction in a general population sample: A latent class analysis. *Eur. Addict. Res.*, 20, 159–166.
- Schimmenti, A.; Passanisi, A.; Gervasi, A.M.; Manzella, S.; Fama, F.I. (2014). Insecure attachment attitudes in the onset of problematic Internet use among late adolescents. *Child Psychiatry Hum. Dev.*, 45, 588–595.
- Statista. (2017[1]). Facts on social networks. Available online: <https://www.statista.com/topics/1164/socialnetworks/> (accessed on 13 January 2017).
- Statista. (2017[2]). Most Famous Social Network Sites Worldwide as of September 2016, Ranked by Number of Active Users. Available online: <https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/> (accessed on 13 January 2017).
- Statista. (2017[3]). Average numbers of hours per day spent by social media users on all social media channels as of 4th quarter 2015, by country. Available online: <https://www.statista.com/statistics/270229/useduration-of-social-networks-by-country/> (accessed on 13 January 2017).
- Statista (2017[4]). Reach of leading social media and networking sites used by teenagers and young adults in the United States as of February 2016. Available online: <https://www.statista.com/statistics/199242/socialmedia-and-networking-sites-used-by-us-teenagers/> (accessed on 27 January 2017).
- Statista. (2017[5]). Share of Facebook users worldwide who accessed Facebook via mobile from 2013 to 2018. Available online: <https://www.statista.com/statistics/380550/share-of-global-mobile-facebook-users/> (accessed on 29 January 2017).
- Smith, A.; Duggan, M. Online dating & relationships. Pew Research Center. Available online: <http://www.pewinternet.org/2013/10/21/online-dating-relationships/> (accessed on 13 January 2017).
- Song, I.; LaRose, R.; Eastin, M.S.; Lin, C.A. (2004). Internet gratifications and internet addiction: On the uses and abuses of new media. *Cyberpsychol. Behav.*, 7, 384–394.
- Taylor, T.L. (2006). Play between Worlds. In *Exploring Online Game Culture*; MIT Press: Cambridge, MA, USA.
- Teo, W.J.S.; Lee, C.S. (2016). Sharing brings happiness? Effects of sharing in social media among adult users. In *Digital Libraries: Knowledge, Information, and Data in an Open Access Society, Proceedings of the 18th International Conference on Asia-Pacific Digital Libraries, ICADL 2016*, Tsukuba, Japan, 7–9 December 2016; Morishima, A., Rauber, A., Liew, C.L., Eds.; Springer: Cham, Switzerland; pp. 351–365.
- Tsitsika, A.K.; Tzavela, E.C.; Janikian, M.; Ólafsson, K.; lordache, A.; Schoenmakers, T.M.; Tzavara, C.; Richardson, C. (2014). Online social networking in adolescence: Patterns of use in six European countries and links with psychosocial functioning. *J. Adolesc. Health*, 55, 141–147.
- Turel, O.; Serenko, A. (2012). The benefits and dangers of enjoyment with social networking websites. *Eur. J. Inf. Syst.*, 21, 512–528.
- Turkle, S. (1995). *Life on the screen*; Simon & Schuster: New York, NY, USA.
- Turkle, S. (2013). *Alone together. Why we expect more from technology and less from each other*; Basic Books: Philadelphia, PA, USA.
- Turkle, S. (2015). *Reclaiming conversation: The power of talk in a digital age*; Penguin: New York, NY, USA.
- Ulanoff, L. President Trump is destroying Twitter. Available online: <http://mashable.com/2017/01/26/trump-stop-tweeting-save-twitter/#.ASS1PZNxmqJ> (accessed on 27 January 2017).
- Walker, T. The 23-year-old Snapchat co-founder and CEO who said no to a \$3bn offer from Facebook. *The Independent*. Available online: <http://www.independent.co.uk/life-style/gadgets-and-tech/news/the-23-year-old-snapchat-co-founder-and-ceo-who-said-no-to-a-3bn-offer-from-facebook-8940433.html> (accessed on 5 August 2016).
- Wang, C.-W.; Ho, R.T.H.; Chan, C.L.W.; Tse, S. (2015). Exploring personality characteristics of Chinese adolescents with internet-related addictive behaviors: Trait differences for gaming addiction and social networking addiction. *Addict. Behav.*, 42, 32–35.
- Webley, K. It's time to confront your Facebook addiction. Available online: <http://newsfeed.time.com/2010/07/08/its-time-to-confront-your-facebook-addiction/> (accessed on 14 March 2017).
- Wilson, K.; Fornasier, S.; White, K.M. (2010). Psychological predictors of young adults' use of social networking sites. *Cyberpsychol. Behav. Soc. Netw.*, 13, 173–177.
- Wolniczak, I.; Cáceres-DelAguila, J.A.; Palma-Ardiles, G.; Arroyo, K.J.; Solís-Visscher, R.; Paredes-Yauri, S.; Mego-Aquije, K.; Bernabe-Ortiz, A. (2013). Association between Facebook dependence and poor sleep quality: A study in a sample of undergraduate students in Peru. *PLoS ONE*, 8, e59087.
- Wu, C.-S.; Cheng, F.-F. (2007). Internet cafe addiction of Taiwanese adolescents. *Cyberpsychol. Behav.*, 10, 220–225.
- Xu, H.; Tan, B.C.Y. (2012). Why do I keep checking Facebook: Effects of message characteristics on the formation of social network services addiction. In *Proceedings of the Thirty Third International Conference on Information Systems*, Orlando, FL, USA, 16–19 December 2012.
- Young, K. (1998). *Caught in the net*; Wiley: New York, NY, USA, 1998.
- Young, K. Facebook addiction disorder? Available online: [http://www.netaddiction.com/index.php?option=com\\_blog&view=comments&pid=5&Itemid=0](http://www.netaddiction.com/index.php?option=com_blog&view=comments&pid=5&Itemid=0) (accessed on 14 March 2017).
- Zephoria Digital Marketing. (2017). The top 20 valuable Facebook statistics—Updated January 2017. Available online: <https://zephoria.com/top-15-valuable-facebook-statistics/> (accessed on 27 January 2017).
- Zhao, S.Y.; Grasmuck, S.; Martin, J. (2008). Identity construction on Facebook: Digital empowerment in anchored relationships. *Comput. Hum. Behav.*, 24, 1816–1836.

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# MOOD RESPONSES ASSOCIATED WITH COVID-19 RESTRICTIONS

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and Victoria R. Terry**

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The COVID-19 pandemic resulted in more than half the world's population being placed in lockdown to stem the spread of the virus. The severe restrictions imposed in many nations had the potential to significantly influence the physical and psychological wellbeing of those affected. The aim of the current study was to investigate mood responses during the period of restrictions from March to June 2020. Mood responses of 1062 participants (386 male, 676 female) were collected using the Brunel Mood Scale, hosted on the *In The Mood* website ([www.moodprofiling.com](http://www.moodprofiling.com)). The mean pattern of mood responses reflected an inverse iceberg profile, characterised by significantly elevated scores for tension, depression, anger, fatigue and confusion, and below average scores for vigour – a profile associated with increased risk of mental health issues. Females reported more negative mood scores than males. Participants in the 25 and under age group reported the most negative profiles, whereas those in the 56 and above age group reported the least negative profiles. Mood differences related to education status were also evident. Finally, mood scores fluctuated over time, with profiles being most negative during April and June. Overall, results confirmed significant mood disturbance during the period of COVID-19 restrictions, representing increased risk of psychopathology.

## Introduction

On 30 January 2020, the World Health Organization (WHO) declared the novel coronavirus 2019-nCoV (COVID-19) to be a “public health emergency of international concern” (World Health Organization, 2020a, p. 1). By the end of September 2020, COVID-19 had been contracted by over 35 million people globally and had caused more than one million deaths (Centre for Systems Science and Engineering, 2020). To interrupt the flow of transmission, significant restrictions were introduced, impinging on a large proportion of the world's population. International traffic was affected, with many countries closing national borders and introducing overseas travel bans. Citizens were required to reduce daily contact and remain indoors for extended periods, colloquially referred to as “lockdown” (Hale et al., 2020), many small businesses were forced to close, financial markets retreated,

and unemployment soared (Pak et al., 2020).

Given the unprecedented consequences of this global health crisis, investigating the effects of such wide-ranging restrictions on indicators of mental health is critically important. COVID-19 and other strains of the coronavirus have been shown to inflict adverse mental health effects, not only on those who contract the disease (Rogers et al., 2020), but also on those placed in precautionary quarantine (Brooks et al., 2020), on health caregivers (Pappa et al., 2020), and on individuals whose daily lives are severely impacted (Ammar et al., 2020c).

A meta-analysis of 65 independent studies (Rogers et al., 2020) showed that individuals who had contracted but recovered from a severe coronavirus infection, including severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), were susceptible to mental health issues in the longer term, including depression, anxiety, fatigue and post-traumatic stress disorder (PTSD), sometimes years after being discharged from hospital. Moreover, an investigation of psychiatric complications among COVID-19 patients confirmed that the effects of the disease extend beyond respiratory issues in many cases, prompting a range of adverse cerebral events that include psychosis and affective disorders (Varatharaj et al., 2020).

A review of 24 studies investigating the psychological impact of being in quarantine (Brooks et al., 2020) also identified several negative effects, including PTSD symptoms, confusion and

anger. Fear, frustration and boredom were among the stressors listed as contributing to mental health issues. Several predictions of a looming mental health crisis associated with COVID-19 have been promulgated (for example, Pfefferbaum & North, 2020), along with a range of publications outlining the likely psychosocial effects of the pandemic with accompanying advice on how to manage mental health (for example, World Health Organization, 2020b). A large-scale investigation of the psychosocial impacts of home confinement, involving 35 research organisations globally, identified significantly decreased life satisfaction associated with dramatic reductions in social participation through family, friends and entertainment (Ammar et al., 2020b).

A systematic review and meta-analysis of 13 studies conducted since the COVID-19 pandemic commenced, covering a combined total of 33,062 healthcare workers (Pappa et al., 2020), found the prevalence of mental health issues, particularly depression and anxiety, to be significantly elevated compared to population norms, especially among females. Further, a multicentre study of the emotional consequences of COVID-19 lockdown, involving 35 research organisations globally, reported reduced overall mental wellbeing and increased depressive symptoms triggered by enforced home confinement (Ammar et al., 2020c). Moreover, a national survey of 13,829 respondents in Australia during the first month of COVID-19 restrictions

(Fisher et al., 2020) concluded that mental health problems were at least twice as prevalent as in non-pandemic circumstances.

The effects of the COVID-19 lockdown on the mood responses of individuals is an important indicator of how well society is coping with the pandemic. The YouGov website in the United Kingdom provides a weekly assessment of the mood of the nation, which showed that the percentage of those reporting feeling “happy” had plummeted from 50 per cent in early March 2020 to 26 per cent a month later, whereas those feeling “scared” had risen from a norm of 11 to 34 per cent, feeling “bored” from 19 to 34 per cent, and feeling “stressed” from 41 to 48 per cent (YouGov, 2020). These data offer clear signs that the collective mood of the country deteriorated once lockdown measures were introduced into the UK.

Using a similar research paradigm to the YouGov approach, our study focused on assessing the mood responses of individuals during the period when movement and gathering restrictions were in place, and comparing the observed mood scores with well-established normative values developed prior to the COVID-19 outbreak (Terry et al., 1999, 2003a; Terry & Lane, 2010). For the purpose of our investigation, mood is defined as “a set of feelings, ephemeral in nature, varying in intensity and duration, and usually involving more than one emotion” (Lane & Terry, 2000, p. 17). Several distinct mood profiles have been identified, based on the Profile of Mood States (McNair et al., 1971) or derivative measures, such as the Brunel **(continued page 40)**



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Mood Scale (BRUMS) (Terry et al., 1999, 2003a). For example, Morgan (1985) proposed that the iceberg profile, a pattern of mood responses characterised by above average scores for vigour and below average scores for tension, depression, anger, fatigue and confusion, was associated with psychological wellbeing, whereas negative moods are associated with increased risk of psychopathology. Subsequently, Morgan et al. (1987) and others have highlighted the inverse iceberg mood profile, characterised by above average scores for tension, depression, anger, fatigue and confusion, and below average scores for vigour, as indicative of increased risk of a range of pathologies, including chronic fatigue, overtraining syndrome, PTSD and eating disorders (for example, Budgett, 1998; Terry & Galambos, 2004; van Wijk et al., 2013).

More recent studies (Parsons-Smith et al., 2017; Quartiroli et al., 2018; Han et al., 2020) have identified new profiles, referred to as the inverse Everest, shark fin, submerged and surface profiles. The inverse Everest profile is characterised by low vigour scores, high scores for tension and fatigue, and very high scores for depression, anger and confusion. The shark fin profile is characterised by below average scores for tension, depression, anger, vigour and confusion, combined with a high score for fatigue. The submerged profile is characterised by below average scores for all six mood dimensions. The surface profile is characterised by average scores for all six mood dimensions. In the present study, it was hypothesised that during the period of COVID-19-related restrictions there would be increased prevalence of inverse iceberg and inverse Everest profiles and decreased prevalence of iceberg and submerged profiles.

**TABLE 1 |** Sample demographics (*N* = 1062).

Source	<i>n</i>	%
<b>Sex</b>		
Male	386	36.3
Female	676	63.7
<b>Age band (years)</b>		
≤ 25	243	22.9
26–35	263	24.8
36–45	232	21.8
46–55	167	15.7
≥ 56	157	14.8
<b>Ethnicity</b>		
African	16	1.5
Asian	87	8.2
Caucasian	853	80.3
Indigenous	18	1.7
Middle Eastern	19	1.8
Other	69	6.5
<b>Education level</b>		
≤ High school graduate	238	22.4
TAFE <sup>1</sup> /Trade qualification	197	18.5
University qualification	316	29.8
Postgraduate qualification	311	29.3

<sup>1</sup> TAFE, *Technical and Further Education*.

## Materials and methods

### Participants

A total of 1062 individuals participated in an online study. A range of age bands, ethnicities and education levels were represented (see Table 1). Age bands were represented relatively evenly, but sex (64 per cent female), ethnicity (80 per cent Caucasian) and education level (59 per cent university educated) were unevenly distributed.

### Measures

Participants reported relevant demographic information (sex, age band, ethnicity, education level) and completed the Brunel Mood Scale (BRUMS; Terry et al., 1999, 2003a). The BRUMS is a 24-item scale of basic mood descriptors, with a standard response timeframe of “How do you feel right now?”

Participants rated their moods on a five-point Likert scale (0 = not at all, 1 = a little, 2 = moderately, 3 = quite a bit, 4 = extremely). The BRUMS has six subscales (anger, confusion, depression, fatigue, tension and vigour) each with four items. Total subscale scores range from 0 to 16. Raw scores are transformed into standard scores with reference to established tables of normative data (see Terry et al., 2003a). The BRUMS has been validated across diverse cultures (for example, Terry et al., 2003b; Zhang et al., 2014; Han et al., 2020) and situational contexts (for example, van Wijk et al., 2013; Sties et al., 2014). Good internal consistency has been demonstrated for the six subscales, with Cronbach alpha coefficients ranging from 0.74 to 0.90 (Terry et al., 1999).

For the purpose of our investigation, mood is defined as “a set of feelings, ephemeral in nature, varying in intensity and duration, and usually involving more than one emotion.”

### Procedure

All data were collected via the In *The Mood* website (Terry et al., 2013). The BRUMS takes approximately two minutes to complete. The website database has almost 28,000 completed BRUMS profiles. Data collected during the current study were compared with established norms. The study was conducted in accordance with the Australian Code for the Responsible Conduct of Research. The protocol was approved by the Human Research Ethics Committee at the University of Southern Queensland (approval number: H19REA100).

### Data screening

As the website does not allow participants to submit the BRUMS for scoring unless all items have been answered, there were no missing values. Consistent with previous samples (for example, Parsons-Smith et al., 2017; Quartiroli et al., 2018), univariate non-normality was evident for some subscales (such as depression, anger and tension). As is typical of mood measures, negative scores tended toward higher numbers at the lower end of the scoring range, and lower numbers at the upper end (Terry et al., 1999, 2003a). Frequency distributions for skewness and kurtosis were examined and it was concluded that deviations

from normal distribution were unlikely to make a substantive difference to the analyses, thus no data were removed. Using the Mahalanobis distance test ( $p < 0.001$ ), a total of 13 multivariate outliers were identified, although a case-by-case inspection found no examples of response bias in the form of acquiescent, extreme or straight line responding (Meisenberg & Williams, 2008; Leiner, 2019). Hence, all outliers were retained in the sample of 1062 respondents.

### Results

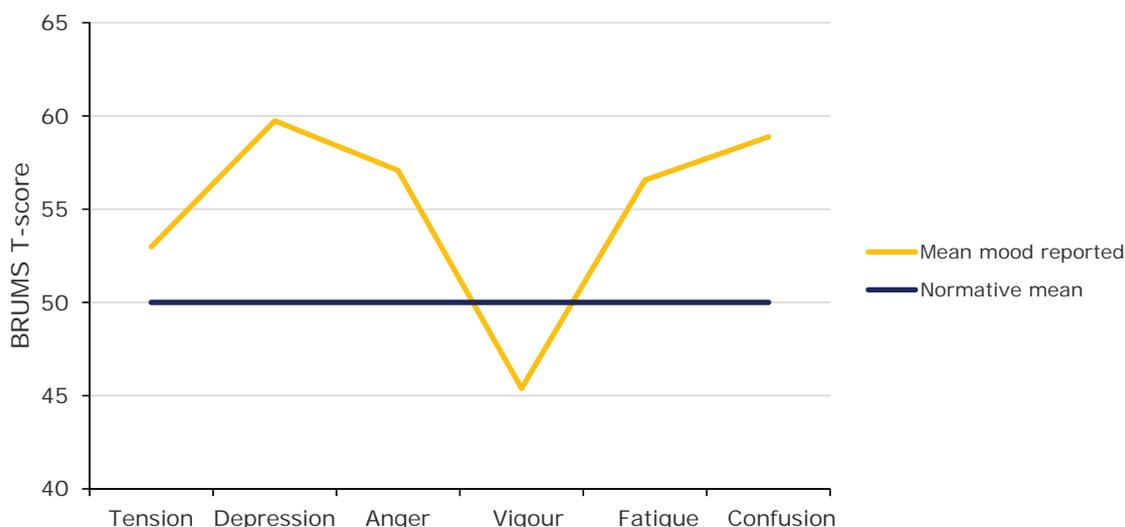
#### Mean mood profile during COVID-19 restrictions

The full range of raw scores (0–16) was observed for all six subscales. Once the raw scores were transformed into standard scores (T-scores), the mean mood profile of the whole sample, when plotted against relevant norms, represented an inverse iceberg profile (see Figure 1, p. 40). The observed mean scores for all mood dimensions were significantly different from the normative mean score of 50 ( $p < 0.001$ ; see Table 2, p. 40). Effect sizes were small for tension scores ( $d = 0.28$ ) and moderate-to-large for depression, anger, vigour, fatigue and confusion scores ( $d = 0.54$ – $0.70$ ).

### Cluster analysis

A seeded k-means cluster analysis with a prescribed six-cluster solution clearly identified the same six mood profiles previously reported in the literature (for example, Parsons-Smith et al., 2017; see Figure 2, p. 41). However, although the profiles were identical to those found in previous investigations, their prevalence was markedly different. Prevalence of the shark fin profile (12.9 per cent) and surface profile (17.3 per cent) was consistent with previous studies ( $\sim 15.1$  [range = 13.0–17.3 per cent] and  $\sim 17.0$  [range = 14.8–21 per cent], respectively). However, as hypothesised, there were significantly fewer iceberg profiles (20.2 vs.  $\sim 27.6$  per cent [range = 23.3–30.0 per cent]) and submerged profiles reported (16.2 vs.  $\sim 24.8$  per cent [range = 18.0–31.4 per cent]). Most notably, and again as hypothesised, the inverse iceberg was the most commonly reported profile in the present investigation (21.2 vs.  $\sim 11.9$  per cent [range = 9.3–14.0 per cent]) and the inverse Everest profile was reported by 12.2 per cent of participants compared to the typical  $\sim 3.8$  per cent (range = 2.4–5.0 per cent; Han et al., 2020; Parsons-Smith et al., 2017; Quartiroli et al., 2018; Terry & Parsons-Smith, 2019). Both the inverse iceberg and inverse Everest profiles reflect increased risk of psychopathology (for example, Terry & Galambos, 2004; van Wijk et al., 2013).

**FIGURE 1** | Mean mood profile reported during COVID-19 restrictions ( $N = 1062$ ).



### Demographic influences on mood responses

Single-factor MANOVAs (multivariate analysis of variances) were used to investigate the influence of sex, age band, level of education and month on mood responses and univariate analyses were used to identify significant between-group differences. Ethnicity was excluded from analyses due to unequal sample sizes (Tabachnick & Fidell, 2019). Significant multivariate variability at  $p < 0.001$  was found for each variable analysed (see Table 3, p. 41). Univariate differences were assessed using a Bonferroni-adjusted alpha level of  $p < 0.008$ . Females reported higher scores for tension, depression, fatigue and confusion, and lower scores for vigour, compared with males. Those aged  $\leq 25$  years reported higher scores for tension and confusion compared with those aged from 46 to 55 years. Participants in the  $\geq 56$  category scored lower for tension, depression, anger, fatigue and confusion compared with the  $\leq 25$  and 26 to 35 age bands, as well as lower scores for anger and fatigue compared with individuals aged 36 to 45 years. For education, participants with a TAFE/trade qualification scored higher for

depression and fatigue compared with those with a postgraduate qualification, and lower for vigour in comparison to individuals with either a university or postgraduate level of education. In terms of trends over time, participants scored lower for depression and fatigue in March compared with April and June. Lower vigour and higher fatigue scores were reported in April compared with May. Higher anger scores were reported in June compared with March and May.

### Distribution of mood profiles by demographic variable

Chi-squared tests were used to assess the distribution of mood

profile clusters by demographic variables of interest. Significant associations between the six mood profiles and sex, age group and education level were found (see Table 4). Adjusted residuals were assessed against the critical values of  $\pm 1.96$ ,  $\pm 2.58$  and  $\pm 3.29$  (Field, 2009) to identify the source of differences.

### Sex

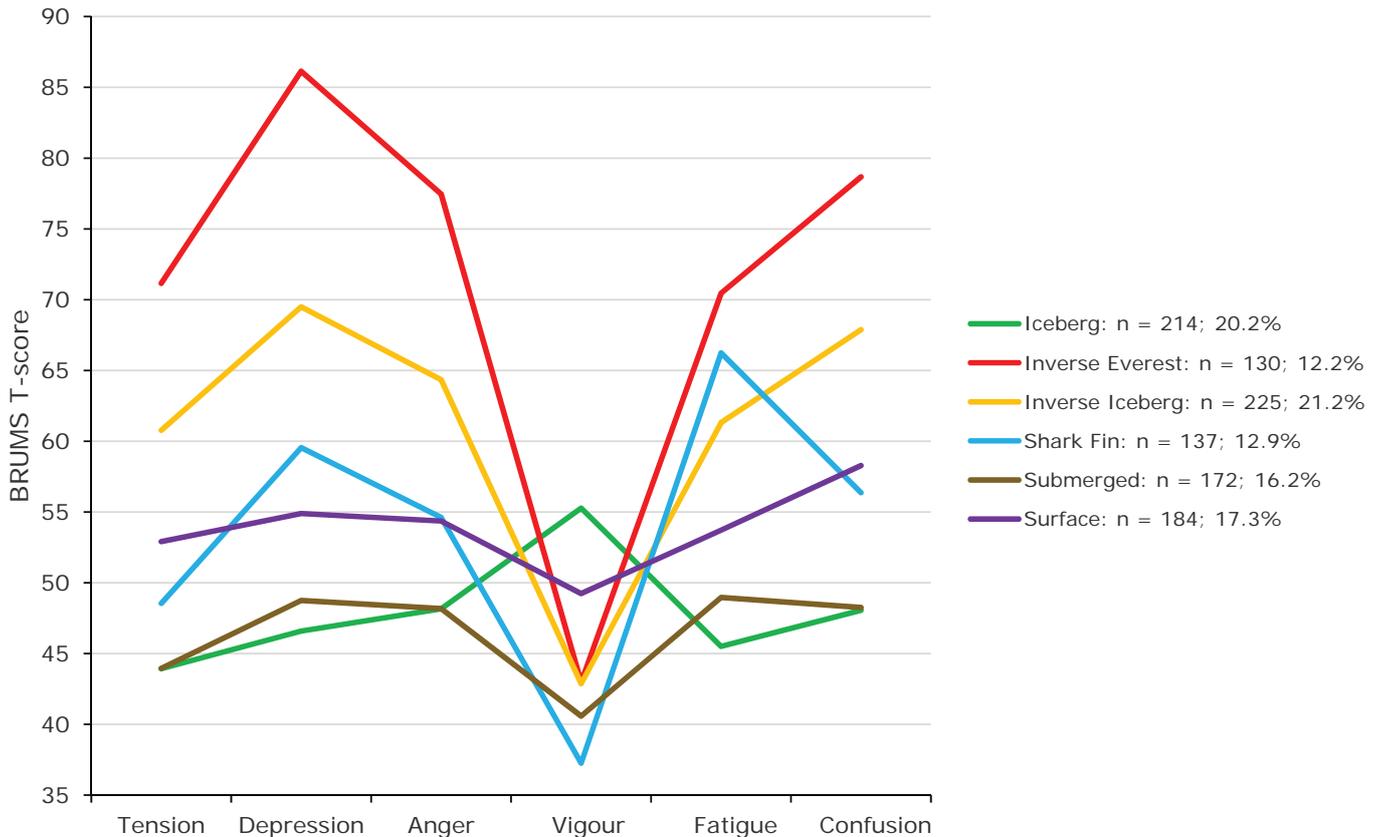
The distribution of mood profiles varied significantly by sex, with males generally reporting more positive profiles. Males were over-represented in the iceberg profile whereas females were over-represented in the shark fin

**TABLE 2** | Comparison of mean BRUMS scores vs. norms ( $N = 1062$ ).

Mood dimension	M	SD	Range	t	d
Tension	52.98	10.80	[40–83]	8.99 <sup>†</sup>	0.28
Depression	59.74	14.83	[44–106]	21.40 <sup>†</sup>	0.66
Anger	57.08	12.21	[45–98]	18.90 <sup>†</sup>	0.58
Vigour	45.39	8.7	[31–71]	17.74 <sup>†</sup>	0.54
Fatigue	56.56	10.55	[40–79]	20.26 <sup>†</sup>	0.62
Confusion	58.88	12.76	[43–99]	22.68 <sup>†</sup>	0.70

*t*, *t*-test for difference between observed mean and normative mean of 50; *d*, effect size; <sup>†</sup> $p < 0.001$ .

**FIGURE 2 |** Prevalence of mood profile clusters (N = 1062).



**TABLE 3 |** MANOVA of BRUMS subscales by demographic variables.

Source	Tension		Depression		Anger		Vigour		Fatigue		Confusion	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
<b>Sex [<math>T^2 = 0.13, F(6,1055) = 23.04^{\dagger}</math>]</b>												
Male (n = 386)	51.27 <sup>†</sup>	10.08	58.02*	14.13	57.91	12.72	48.46 <sup>†</sup>	8.09	54.05 <sup>†</sup>	9.05	57.23 <sup>†</sup>	12.24
Female (n = 676)	53.96	11.08	60.72	15.13	56.61	11.89	43.63	8.19	58.00	10.85	59.82	12.97
<b>Age band [<math>T^2 = 0.08, F(24,4202) = 3.60^{\dagger}</math>]</b>												
≤25 years <sup>a</sup> (n = 243)	55.24 <sup>†e</sup>	11.87	62.03 <sup>†e</sup>	15.50	57.80 <sup>*e</sup>	12.05	45.65	7.99	58.63 <sup>†e</sup>	10.39	62.27 <sup>†de</sup>	13.36
26–35 years <sup>b</sup> (n = 263)	54.04 <sup>†e</sup>	10.74	60.94 <sup>*e</sup>	15.34	57.96 <sup>*e</sup>	13.06	45.08	8.94	57.27 <sup>†e</sup>	10.60	59.90 <sup>†e</sup>	12.84
36–45 years <sup>c</sup> (n = 232)	53.06	10.15	60.09	14.15	58.42 <sup>†e</sup>	12.07	44.48	8.54	57.68 <sup>†e</sup>	10.66	58.80	12.08
46–55 years <sup>d</sup> (n = 167)	51.25 <sup>*a</sup>	10.51	58.05	14.94	56.19	13.28	45.24	8.39	55.22	10.34	56.50	12.57
≥56 years <sup>e</sup> (n = 157)	49.44	9.20	55.46	12.69	53.46	8.94	46.99	8.23	51.95	9.25	54.57	11.21
<b>Education level [<math>T^2 = 0.05, F(18,3155) = 2.92^{\dagger}</math>]</b>												
≤ High school <sup>a</sup> (n = 238)	52.86	10.94	60.72	14.96	57.48	12.28	44.69	8.29	57.06	10.63	58.96	12.33
TAFE <sup>1</sup> /Trade <sup>b</sup> (n = 197)	53.88	11.59	61.82 <sup>d</sup>	15.41	58.06	12.36	43.24 <sup>*c</sup>	7.86	59.49 <sup>†d</sup>	11.45	60.50	12.99
University <sup>c</sup> (n = 316)	53.36	10.85	60.07	15.10	57.06	12.58	45.80	8.28	56.61	10.45	59.67	13.58
Postgraduate <sup>d</sup> (n = 311)	52.12	10.07	57.33	13.79	56.17	11.66	46.86 <sup>†b</sup>	8.88	54.28	9.46	56.99	11.89
<b>Month [<math>T^2 = 0.06, F(18,3155) = 3.65^{\dagger}</math>]</b>												
March 2020 <sup>a</sup> (n = 33)	51.45	8.34	50.67 <sup>†bd</sup>	10.13	51.36	8.03	48.24	7.55	49.61 <sup>†bd</sup>	8.20	54.82	9.29
April 2020 <sup>b</sup> (n = 633)	53.23	10.99	60.50	15.12	57.14	12.05	44.66 <sup>†c</sup>	8.19	57.26 <sup>*c</sup>	10.69	59.23	13.07
May 2020 <sup>c</sup> (n = 185)	51.63	10.14	56.82	13.67	54.83	11.07	47.54	9.45	54.42	9.79	56.52	11.95
June 2020 <sup>d</sup> (n = 211)	53.65	11.06	61.44	14.77	59.76 <sup>†ac</sup>	13.48	45.22	8.20	57.45	10.48	60.52	12.65

$T^2$ , Hotelling's T-squared; <sup>†</sup>p < 0.001; \*p < 0.008; <sup>1</sup>TAFE, Technical and Further Education. Superscript letters a–e are used to indicate sub-group differences.

**TABLE 4** | Distribution of clusters by demographic variables.

Source	Cluster											
	1	%	2	%	3	%	4	%	5	%	6	%
<b>Sex [<math>\chi^2(5,1062) = 52.07^\dagger</math>]</b>												
Male ( <i>n</i> = 386)	111 <sup>†+</sup>	28.8	38	9.8	71	18.4	27 <sup>†-</sup>	7.0	55	14.2	84 <sup>§+</sup>	21.8
Female ( <i>n</i> = 676)	103 <sup>†-</sup>	15.2	92	13.6	154	22.8	110 <sup>†+</sup>	16.3	117	17.3	100 <sup>§-</sup>	14.8
<b>Age band [<math>\chi^2(20,1062) = 80.13^\dagger</math>]</b>												
≤25 years ( <i>n</i> = 243)	31 <sup>†-</sup>	12.8	39 <sup>++</sup>	16.0	52	21.4	36	14.8	27 <sup>†-</sup>	11.1	58 <sup>§+</sup>	23.9
26-35 years ( <i>n</i> = 263)	41 <sup>†-</sup>	15.6	37	14.1	58	22.1	35	13.3	43	16.3	49	18.6
36-45 years ( <i>n</i> = 232)	39	16.8	30	12.9	61 <sup>†+</sup>	26.3	28	12.1	40	17.2	34	14.7
46-55 years ( <i>n</i> = 167)	41	24.6	15	9.0	31	18.6	21	12.6	39 <sup>§+</sup>	23.4	20	12.0
≥56 years ( <i>n</i> = 157)	62 <sup>†+</sup>	39.5	9 <sup>§-</sup>	5.7	23 <sup>†-</sup>	14.6	17	10.8	23	14.6	23	14.6
<b>Education level [<math>\chi^2(15,1062) = 28.99^*</math>]</b>												
≤High school ( <i>n</i> = 238)	43	18.1	32	13.4	51	21.4	36	15.1	41	17.2	35	14.7
TAFE <sup>1</sup> /Trade ( <i>n</i> = 197)	29 <sup>†-</sup>	14.7	34 <sup>†+</sup>	17.3	41	20.8	32	16.2	31	15.7	30	15.2
University ( <i>n</i> = 316)	56	17.7	36	11.4	73	23.1	35	11.1	52	16.5	64	20.3
Postgraduate ( <i>n</i> = 311)	86 <sup>†+</sup>	27.7	28 <sup>†-</sup>	9.0	60	19.3	34	10.9	48	15.4	55	17.7

1, Iceberg; 2, Inverse Everest; 3, Inverse Iceberg; 4, Shark Fin; 5, Submerged; 6, Surface; +, over-represented, -, under-represented; <sup>†</sup>*p* < 0.001; <sup>§</sup>*p* < 0.01; \**p* < 0.05; <sup>1</sup>TAFE, Technical and Further Education.

profile, consistent with previous studies (Parsons-Smith et al., 2017; Quartiroli et al., 2018; Han et al., 2020). Males were over-represented in the surface profile compared with females, consistent with Han et al. (2020). Although females reported a higher prevalence of inverse iceberg profiles, the distribution did not vary significantly, mirroring the findings of Quartiroli et al. (2018). The distributions of the inverse Everest and submerged profiles were independent of sex.

### Age band

A general trend of mood profiles being more positive among older age groups was evident, largely consistent with previous age group comparisons (Parsons-Smith et al., 2017; Quartiroli et al., 2018). Younger participants (≤25 years, 26 to 35 years) were under-represented and older participants (≥56 years) over-represented in the iceberg profile. Younger participants (≤25 years) were over-represented and older participants (≥56 years) under-represented in the inverse Everest profile. Participants aged 36 to 45 years were over-represented

in the inverse iceberg profile, whereas those ≥56 years were under-represented. Individuals aged 46 to 55 years were over-represented in the submerged profile, whereas those ≤25 years were under-represented. The distribution for the shark fin profile was independent of age.

### Level of education

Participants with a TAFE/trade qualification were under-represented in the iceberg profile and over-represented in the inverse Everest profile. The reverse was true for those with a postgraduate level of education. Distributions for the inverse iceberg, shark fin, submerged and surface profiles were independent of level of education.

### Discussion

The mean mood profile for the participant group collectively, compared to normative scores, was characterised by elevated tension, depression, anger, fatigue and confusion, and reduced vigour. Significant mood disturbance was further reflected in the prevalence of mood profile clusters, when

compared to prevalence rates reported in previous studies. For example, the inverse iceberg was reported by 1.2 per cent of participants and the inverse Everest profile by 12.2 per cent of participants, compared to the typical prevalence of 11.9 per cent and 3.8 per cent, respectively (Parsons-Smith et al., 2017; Quartiroli et al., 2018; Terry & Parsons-Smith, 2019; Han et al., 2020). This suggests that ~33 per cent of our sample were at increased risk of experiencing some form of clinically diagnosable mood-related disorder, whereas the global point prevalence of mood disorders based on the results of 148 studies is 5.4 per cent (Steel et al., 2014). Our findings align with those of Fisher et al. (2020), who found that 25 per cent of participants reported mild to moderate depressive symptomology during the first month of COVID-19 restrictions. There are several plausible explanations for the observed increase in negative feeling states. The pandemic has undoubtedly caused fear and loss for many individuals, such as health fears

Given the saturation of negative COVID-19 information in the media, younger adults may find it difficult to employ cognitive distraction and avoidance strategies and are more likely to engage in maladaptive emotion-regulation strategies, such as rumination and suppression of feelings.

for self and loved ones, fear of isolation, and loss of income, social support and a sense of normality; the list is extensive. The notion of disenfranchised grief (Doka, 2002) offers a potential explanation for the widespread mood disturbance evident among participants. Grief at the loss of someone or something dear to an individual is said to be disenfranchised when the grief is perceived to be unacknowledged or unworthy. During the pandemic, many individuals have lost livelihoods, relationships and opportunities, or been denied access to simple things that give them pleasure, such as physical contact with friends and family, a trip to the local café or interacting with work colleagues. Although such losses can trigger a genuine grief response, knowledge of countless pandemic-related deaths may create a perceived obligation to minimise the outward expression of loss because others are in far worse circumstances. A reluctance or inability to share grief and loss with others may be associated with mood decrements and increased potential for psychopathology (Fisher et al., 2020).

Mood disturbance may also be explained by reduced physical activity and increased sedentary behaviours during COVID-19 restrictions. The antidepressant effect of exercise has a strong evidence base (Dunn et al., 2005; Siqueira et al., 2016) and exercise as a treatment for mood disorders is also well established (Hearing et al., 2016). Australia's Physical Activity and Sedentary Behaviour Guidelines for Adults (18–64 years)

advocates a simple message of moving more and sitting less, with a recommendation to accumulate 150 to 300 minutes per week of moderate intensity physical activity or 75 to 150 minutes per week of vigorous exercise (Department of Health, 2019). Unfortunately, since COVID-19 restrictions have come into force, many people have been moving less and sitting more (Ammar et al., 2020a). Moreover, reduced exercise duration during the pandemic has been associated with higher scores for depression, anxiety and stress (Stanton et al., 2020). Encouragingly, some recently published papers have offered guidelines and practical recommendations for staying physically active during quarantine and/or self-isolation (for example, Bentlage et al., 2020; Chtourou et al., 2020). Trait characteristics may also play an important role in determining mood responses to COVID-19 restrictions. An Italian study conducted during the early stages of the pandemic in Europe (February to March 2020) among a sample of 2886 participants (Pagnini et al., 2020) showed that negative feeling states in response to movement restrictions were more common among those with greater cognitive rigidity and emotional instability. Results of between-group comparisons identified similar findings to those reported previously. Compared to males, females reported significantly higher levels of tension, depression, fatigue and confusion, together with lower levels of vigour, replicating the findings of Han et al. (2020). Research on the six mood profile

clusters has consistently found an increased prevalence of the more negative mood profiles for females compared with males (Parsons-Smith et al., 2017; Quartiroli et al., 2018; Han et al., 2020), and the Australian Bureau of Statistics (2008) notes that females are almost twice as likely as males to be affected by a mood disorder (8.4 vs. 4.3 per cent). Several explanations have been advanced to explain sex differences in mood responses. From a chronobiological perspective, there is evidence to support a sex-specific predisposition to depressive states. Many sub-threshold depressive symptoms, and indeed mood disorders, have been tentatively linked to dramatic hormonal fluctuations relating to reproductive-related events, such as menarche, menstruation, pregnancy, postpartum and menopause (Soares, 2013). Such “windows of vulnerability” (Soares, 2013, p. 677) are thought to predispose women to depressive symptoms via estrogen-serotonin interactions (Miller et al., 2002; Amin et al., 2005). Estrogen has been found to play an important mechanistic role in mood regulation (Halbreich & Kahn, 2001; Miller et al., 2002), although the specific pathophysiological pathways remain poorly understood (Soares, 2013). Other explanations are psychological in nature, including sex differences in ability to downregulate negative feeling states through the implementation of effective strategies (Nolen-Hoeksema, 1991, 2012), and a greater willingness among females to report mood disturbance (Bogner & Gallo, 2004).

Regarding age, it is evident globally that those in the 18 to 25 age group have been disproportionately affected materially by the pandemic, in terms of reduced employment and income (Belot et al., 2020). Logically, such detrimental effects would act as a catalyst for mood disturbance among younger individuals. However, nuanced differences in the adoption of effective emotion-regulation strategies may also underlie age-related variations in reported mood. Consistent with previous findings (Parsons-Smith et al., 2017; Quartiroli et al., 2018; Han et al., 2020), younger participants reported higher scores for tension, depression, anger, fatigue and confusion compared with their older counterparts, and were more likely to report negative mood profiles, rather than the iceberg profile more frequently reported by those aged  $\geq 56$  years. Associations between maladaptive coping strategies and psychopathology symptom development have been reported (McLaughlin et al., 2011). Younger adults are more likely to utilise rumination, avoidance and suppression, all of which are associated with poorer mental health outcomes (Aldao et al., 2010). Further, a reciprocal relationship exists between rumination and development of depression and anxiety symptomology (McLaughlin & Nolen-Hoeksema, 2011).

Given the saturation of negative COVID-19 information in the media, younger adults may find it difficult to employ cognitive distraction and avoidance strategies and are more likely to engage in maladaptive emotion-regulation strategies, such as rumination and suppression of feelings. Conversely, adaptive strategies such as acceptance, reappraisal and problem-solving, which are associated with more positive outcomes, are techniques

more often adopted by older adults (Aldao et al., 2010). Additionally, older adults are more likely to have built a repertoire of effective and flexible coping strategies from which to draw that may better suit challenging situations (Livingstone et al., 2020). Older adults may therefore be inclined to put COVID-19 restrictions into a broader and more manageable perspective. In general, active, as opposed to passive, emotion-focused strategies tend to be more adaptive and likely to be associated with reduced mood disturbance in the current climate.

In terms of level of education, participants with a postgraduate qualification reported lower scores for depression and fatigue and higher scores for vigour compared to those with a TAFE/trade qualification. These mean differences also translated into the postgraduate group being over-represented for the iceberg profile and under-represented for the inverse Everest profile, with the reverse being true for the TAFE/trade group. A clear link between education, income and financial stress has been identified in the literature. In Australia, individuals with a doctoral degree are up to six times more likely to be in the top 10 per cent of income earners, even after controlling for age, occupation, labour force status and gender. Further, those with higher levels of education are more likely to be employed and less likely to experience financial stress (Department of Education, Skills and Employment, 2020).

Variations in mood scores were also evident over time. Participants scored lower for depression and fatigue in March compared with April and June. Lower vigour and higher fatigue scores were also reported in April compared with May. A study from India conducted during the early stages of the COVID-19 pandemic

provided insights into the mood of the population derived from the emotional content of more than 86,000 Twitter posts (Venigalla et al., 2020). The emotional content of tweets varied according to specific trigger events, such as the introduction and extension of lockdown restrictions. The mood fluctuations over time evident in our study appear to similarly reflect an emotional rollercoaster among participants, triggered by events such as the varying geographical spread and control of the virus, the dramatic economic fallouts and the differential tightening and easing of restrictions.

Some limitations of our study are acknowledged. Online surveys require access to a computer with internet access and, in our case, fluency in English, which tends to reduce participation by those from lower socioeconomic and marginalised groups, and non-English speakers. Further, the demographic characteristics of our sample showed an over-representation of females, Caucasians and university-educated participants, which may limit the generalisability of the findings. It should also be noted that the BRUMS, as a brief measure of current mood, is not a diagnostic tool and hence, although our results may signal an increased risk of clinical psychopathology among participants, they could equally be seen in terms of challenging but essentially normal psychological adjustments to, in most people's experience, unprecedented societal restrictions.

In summary, evidence regarding the economic impact of COVID-19 suggests that females, younger people and lesser educated, lower-paid individuals are at "the epicentre of the crisis" (Gustafsson & McCurdy, 2020, p. 9). Our findings indicate that these same groups are also experiencing the greatest emotional burden, in terms of mood disturbance.



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Regarding age, it is evident globally that those in the 18 to 25 age group have been disproportionately affected materially by the pandemic, in terms of reduced employment and income.

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## Conclusion

Clear evidence of elevated tension, depression, anger, fatigue and confusion, and reduced vigour were identified, representing significant mood disturbance and increasing the prospect of a forthcoming mental health crisis. An important implication of our findings is that urgent measures should be considered to ameliorate the negative impact of the COVID-19 pandemic on mental health. ■

### Ethics statement

The studies involving human participants were reviewed and approved by the Human Research Ethics Committee, University of Southern Queensland, Australia (approval number: H19REA100). The patients/participants provided their written informed consent to participate in this study.

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## References

Aldao, A., Nolen-Hoeksema, S., and Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: a meta-analytic review. *Clin. Psych. Rev.* 30, 217–237. doi: 10.1016/j.cpr.2009.11.004

Amin, Z., Canli, T., and Epperson, C. N. (2005). Effect of estrogen-serotonin interactions on mood and cognition. *Behav. Cogn. Neurosci. Rev.* 4, 43–58. doi: 10.1177/1534582305277152

Ammar, A., Brach, M., Trabelsi, K., Chtourou, H., Boukhris, O., and Masmoudi, L. (2020a). Effects of COVID-19 home confinement on eating behaviour and physical activity: results of the ECLB-COVID19 International Online Survey. *Nutrients* 12:e1583.

Ammar, A., Chtourou, H., Boukhris, O., Trabelsi, K., Masmoudi, L., Brach, M., et al. (2020b). COVID-19 home confinement negatively impacts social participation and life satisfaction: A worldwide multicenter study. *Int. J. Environ. Res. Public Health* 17:e6237.

Ammar, A., Mueller, P., Trabelsi, K., Chtourou, H., Boukhris, O., Masmoudi, L., et al. (2020c). Emotional consequences of COVID-19 home confinement: the ECLB-COVID19 multicenter study. *medRxiv* [Preprint] doi: 10.1101/2020.05.05.20091058

Australian Bureau of Statistics. (2008). National survey of mental health and wellbeing: Summary of results, 2007 (cat. no. 4326.0). Available online at: <https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4326.0Main+Feature32007?OpenDocument> (accessed June 18, 2020)

Belot, M., Choi, S., Tripodi, E., van den Broek-Alternburg,

E., Jamison, J. C., and Papageorge, N. W. (2020). Unequal consequences of Covid-19 across age and income: representative evidence from six countries. *Covid Econ.* 38, 196–217.

Bentlage, E., Ammar, A., How, D., Ahmed, M., Trabelsi, K., Chtourou, H., et al. (2020). Practical recommendations for maintaining active lifestyle during the COVID-19 pandemic: a systematic literature review. *Int. J. Environ. Res. Public Health* 17:e6265.

Bogner, H. R., and Gallo, J. J. (2004). Are higher rates of depression in women accounted for by differential symptom reporting? *Soc. Psych. Psychiatr. Epidemiol.* 39, 126–132. doi: 10.1007/s00127-004-0714-z

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessley, S., Greenberg, N., et al. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet* 395, 912–920. doi: 10.1016/S0140-6736(20)30460-8

Budgett, R. (1998). Fatigue and underperformance in athletes: The overtraining syndrome. *Br. J. Sports Med.* 32, 107–110. doi: 10.1136/bjism.32.2.107

Centre for Systems Science and Engineering. (2020). COVID-19 Dashboard. Available online at: <https://coronavirus.jhu.edu/map.html> (accessed July 31, 2020).

Chtourou, H., Trabelsi, K., H'mida, C., Boukhris, O., Glenn, J. M., Brach, M., et al. (2020). Staying physically active during the quarantine and self-isolation period for controlling and mitigating the COVID-19 pandemic: a systematic overview of the literature. *Front. Psychol.* 11:e1708. doi: 10.3389/

fpsyg.2020.01708

Department of Education, Skills and Employment, (2020). *Benefits of educational attainment*. Available online at: <https://docs.education.gov.au/collections/benefits-educational-attainment> (accessed July 28, 2020).

Department of Health, (2019). *Australia's physical activity and sedentary behaviour guidelines and the Australian 24-hour movement guidelines*. Available online at: <https://www1.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-strateg-phys-act-guidelines> (accessed May 30, 2020).

Doka, K. (2002). *Disenfranchised grief: new directions, challenges, and strategies for practice*. Champaign: Research Press.

Dunn, A. L., Trivedi, M. H., Kampert, J. B., Clark, C. G., and Chambliss, H. O. (2005). Exercise treatment for depression: efficacy and dose response. *Am. J. Prev. Med.* 28, 1–8. doi:10.1016/j.amepre.2004.09.003

Field, A. (2009). *Discovering statistics using SPSS, 3rd Edn*. London: Sage.

Fisher, J. R. W., Tran, T. D., Hammargerg, K., Sastry, J., Nguyen, H., Rowe, H., et al. (2020). Mental health of people in Australia in the first month of COVID-19 restrictions: a national survey. *Med. J. Aus.* [Preprint] Available online at: <https://www.mja.com.au/journal/2020/mental-health-people-australia-firstmonth-covid-19-restrictions-national-survey> (accessed June 25, 2020)

Gustafsson, M., and McCurdy, C. (2020). *Risky business: Economic impacts of the coronavirus crisis on different groups*

of workers. Available online at: <https://www.resolutionfoundation.org/app/uploads/2019/10/Riskybusiness.pdf> (accessed June 30, 2020)

Halbreich, U., and Kahn, L. S. (2001). Role of estrogen in the aetiology and treatment of mood disorders. *CNS Drugs* 15, 797–817. doi: 10.2165/00023210-200115100-00005

Hale, T., Webster, S., Petherick, A., Phillips, T., and Kira, B. (2020). *Oxford COVID-19 Government Response Tracker*. Available online at: <https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker> (accessed May 4, 2020)

Han, C. S. Y., Parsons-Smith, R. L., and Terry, P. C. (2020). Mood profiling in Singapore: cross cultural validation and potential applications of mood profile clusters. *Front. Psychol.* 11:e665. doi: 10.3389/fpsyg.2020.00665

Hearing, C. M., Chang, W. C., Szuhany, K. L., Deckersbach, T., Nierenberg, A. A., and Sylvia, L. G. (2016). Physical exercise for treatment of mood disorders: a critical review. *Curr. Behav. Neurosci. Rep.* 3, 350–359. doi:10.1007/s40473-016-0089-y

Lane, A. M., and Terry, P. C. (2000). The nature of mood: development of a conceptual model with a focus on depression. *J. Appl. Sport Psychol.* 12, 16–33. doi: 10.1080/10413200008404211

Leiner, D. J. (2019). Too fast, too straight, too weird: non-reactive indicators for meaningless data in Internet surveys. *Surv. Res. Methods* 13:e7403. doi: 10.18148/srm/2018.v13i3.7403

Livingstone, K. M., Castro, V. L., and Isaacowitz, D. M. (2020). Age differences in beliefs

- about emotion regulation strategies. *J. Geront. Ser. B* 75, 316–326. doi: 10.1093/geronb/gby022
- McLaughlin, K. A., Hatzenbuehler, M. L., Mennin, D. S., and Nolen-Hoeksema, S. (2011). Emotion dysregulation and adolescent psychopathology: a prospective study. *Behav. Res. Ther.* 49, 544–554. doi: 10.1016/j.brat.2011.06.003
- McLaughlin, K. A., and Nolen-Hoeksema, S. (2011). Rumination as a transdiagnostic factor in depression and anxiety. *Behav. Res. Ther.* 49, 186–193. doi: 10.1016/j.brat.2010.12.006
- McNair, D. M., Lorr, M., and Droppelman, L. F. (1971). *Manual for the profile of mood states*. San Diego, CA: Educational and Industrial Testing Services.
- Meisenberg, G., and Williams, A. (2008). Are acquiescent and extreme response styles related to low intelligence and education? *Pers. Individ. Dif.* 44, 1539–1550. doi: 10.1016/j.paid.2008.01.010
- Miller, K. J., Conney, J. C., Rasgon, N. L., Fairbanks, L. A., and Small, G. W. (2002). Mood symptoms and cognitive performance in women estrogen users and nonusers and men. *J. Am. Geriatr. Soc.* 50, 1826–1830. doi: 10.1046/j.1532-5415.2002.50511.x
- Morgan, W. P. (1985). “Selected psychological factors limiting performance: a mental health model,” in *Limits of Human Performance*, eds D. H. Clarke, and H. M. Eckert, (Champaign, IL: Human Kinetics), 70–80.
- Morgan, W. P., Brown, D. R., Raglin, J. S., O’Connor, P. J., and Ellickson, K. A. (1987). Psychological monitoring of overtraining and staleness. *Br. J. Sports Med.* 21, 107–114. doi: 10.1136/bjism.21.3.107
- Nolen-Hoeksema, S. (1991). Responses to depression and their effects on the duration of depressive episodes. *J. Abnorm. Psychol.* 100, 569–582. doi: 10.1037/0021-843X.100.4.569
- Nolen-Hoeksema, S. (2012). Emotion regulation and psychopathology: the role of gender. *Ann. Rev. Clin. Psychol.* 8, 161–187. doi: 10.1146/annurev-clinpsy-032511-143109
- Pagnini, F., Bonanomi, A., Tagliabue, S., Balconi, M., Bertolotti, M., Confalonieri, E., et al. (2020). Knowledge, concerns, and behaviors of individuals during the first week of the coronavirus disease 2019 pandemic in Italy. *JAMA Netw. Open.* 3:e2015821. doi: 10.1001/jamanetworkopen.2020.15821
- Pak, A., Adegboye, O. A., Adekunle, A. I., Rahman, K. M., McBryde, E. S., and Eisen, D. P. (2020). Economic consequences of the COVID-19 outbreak: the need for epidemic preparedness. *Front. Public Health* 8:e241. doi: 10.3389/fpubh.2020.00241
- Pappa, S., Ntella, V., Giannakas, T., Giannakoulis, V. G., Papoutsis, E., and Katsaounou, P. (2020). Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: a systematic review and meta-analysis. *Brain Behav. Immun.* 88, 901–907. doi: 10.1016/j.bbi.2020.05.026
- Parsons-Smith, R. L., Terry, P. C., and Machin, M. A. (2017). Identification and description of novel mood profile clusters. *Front. Psychol.* 8:1958. doi: 10.3389/fpsyg.2017.01958
- Pfefferbaum, B., and North, C. S. (2020). Mental health and the Covid-19 pandemic. *N. Eng. J. Med.* 383, 510–512. doi: 10.1056/NEJMp2008017
- Quartiroli, A., Parsons-Smith, R. L., Fogarty, G. J., Kuan, G., and Terry, P. C. (2018). Cross-cultural validation of mood profile clusters in a sport and exercise context. *Front. Psychol.* 9:1949. doi: 10.3389/fpsyg.2018.01949
- Rogers, J. P., Chesney, E., Oliver, D., Pollak, T. A., McGuire, P., Fusar-Poli, P., et al. (2020). Psychiatric and neuropsychiatric presentations associated with severe coronavirus infections: a systematic review and meta-analysis with comparison to the COVID-19 pandemic. *Lancet Psychiatry* 7, 611–627. doi: 10.1016/S2215-0366(20)30203-0
- Siqueira, C. C., Valiengo, L. L., Carvalho, A. F., Santos-Silva, P. R., Missio, G., de Sousa, R. T., et al. (2016). Antidepressant efficacy of adjunctive aerobic activity and associated biomarkers in major depression: a 4-week, randomized, single-blind, controlled clinical trial. *PLoS One* 11:e0154195. doi: 10.1371/journal.pone.0154195
- Soares, C. N. (2013). Depression in peri- and postmenopausal women: prevalence, pathophysiology and pharmacological management. *Drug Aging* 30, 677–685. doi: 10.1007/s40266-013-0100-1
- Stanton, R., To, Q. G., Khalesi, S., Williams, S. L., Alley, S. J., Thwaite, T. L., et al. (2020). Depression, anxiety and stress during COVID-19: associations with changes in physical activity, sleep, tobacco and alcohol use in Australian adults. *Intern. J. Environ. Res. Pub. Health* 17:4065. doi: 10.3390/ijerph17114065
- Steel, Z., Marnane, C., Iranpour, C., Chey, T., Jackson, J. W., Patel, V., et al. (2014). The global prevalence
- of common mental disorders: a systematic review and meta-analysis 1980–2013. *Int. J. Epidemiol.* 43, 476–493. doi: 10.1093/ije/dyu038
- Sties, S. W., Gonzales, A. I., Netto, A. S., Wittkopf, P. G., Lima, D. P., and de Carvalho, T. (2014). Validation of the Brunel Mood Scale for cardiac rehabilitation program. *Revist. Br. Med. Esporte* 20, 281–284. doi: 10.1590/1517-86922014200401999
- Tabachnick, B. L., and Fidell, L. S. (2019). *Using multivariate statistics*, 7th Edn. Boston, MA: Pearson Education.
- Terry, P., and Parsons-Smith, R. (2019). Identification and incidence of mood profile clusters among sport participants. *J. Sci. Med. Sport* 22:S100. doi: 10.1016/j.jsams.2019.08.129
- Terry, P. C., and Galambos, S. (2004). “Utility of mood profiles in identifying risk of eating disorders among adolescent rowers,” in *Proceedings of the 39th Australian Psychological Society Annual Conference*, (Sydney, NSW: Australian Psychological Society), 269–273.
- Terry, P. C., and Lane, A. M. (2010). *User guide for the Brunel Mood Scale*. Toowoomba, QLD: Peter Terry Consultants.
- Terry, P. C., Lane, A. M., and Fogarty, G. J. (2003a). Construct validity of the Profile of Mood States – adolescents for use with adults. *Psychol. Sport Exerc.* 4, 125–139. doi: 10.1016/S1469-0292(01)00035-8
- Terry, P. C., Lane, A. M., Lane, H. J., and Keohane, L. (1999). Development and validation of a mood measure for adolescents. *J. Sports Sci.* 17, 861–872. doi: 10.1080/026404199365425
- Terry, P. C., Lim, J., and Parsons-Smith, R. L. (2013). *In The Mood: an online mood assessment based on the Brunel Mood Scale (BRUMS)*. Available online at: [www.moodprofiling.com](http://www.moodprofiling.com) (accessed June 30, 2020)
- Terry, P. C., Potgieter, J. R., and Fogarty, G. J. (2003b). The Stellenbosch Mood Scale: a dual-language measure of mood. *Int. J. Sport Exerc. Psychol.* 1, 231–245. doi: 10.1080/1612197X.2003.9671716
- van Wijk, C. H., Martin, J. H., and Hans-Arendse, C. (2013). Clinical utility of the Brunel Mood Scale in screening for post-traumatic stress risk in a military population. *Mil. Med.* 178, 372–376. doi: 10.7202/MILMED-D-12-00422
- Varatharaj, A., Thomas, N., Ellul, M. A., Davies, N. W. S., Pollak, T. A., Tenorio, E. L., et al. (2020). Neurological and neuropsychiatric complications of COVID-19 in 153 patients: a UK-wide surveillance study. *Lancet Psychiatry* 7, 875–882.
- Venigalla, A. S. M., Vagavolu, D., and Chimalakonda, S. (2020). Mood of India during Covid-19 – an interactive web portal based on emotion analysis of Twitter data. *medRxiv* [Preprint] Available online at: <https://arxiv.org/pdf/2005.02955v1.pdf> (Accessed April 10, 2020).
- World Health Organization, (2020a). *Updated WHO recommendations for international traffic in relation to COVID-19 outbreak*. Available online at: <https://www.who.int/news-room/articles-detail/updated-whorecommendations-for-international-traffic-in-relation-to-covid-19-outbreak> (accessed May 23, 2020)
- World Health Organization, (2020b). *Mental health and psychosocial considerations during the COVID-19 outbreak*. Available online at: [https://www.who.int/docs/default-source/coronavirus/mentalhealth-considerations.pdf?sfvrsn=6d3578af\\_10](https://www.who.int/docs/default-source/coronavirus/mentalhealth-considerations.pdf?sfvrsn=6d3578af_10) (accessed May 17, 2020)
- YouGov, (2020). *Britain’s Mood Measured Weekly*. Available online at: <https://yougov.co.uk/topics/science/trackers/britains-mood-measured-weekly> (accessed May 14, 2020).
- Zhang, C.-Q., Si, G., Chung, P.-K., Du, M., and Terry, P. C. (2014). Psychometric properties of the Brunel Mood Scale in Chinese adolescents and adults. *J. Sports Sci.* 32, 1465–1476. doi: 10.1080/02640414.2014.898184

# COUNSELLOR AVAILABILITY TO THEIR PRETEEN CLIENTS

Counsellors must take care in maintaining healthy therapeutic relationships with tech-savvy preteens.

**By Logan Maree McInerney**

Childhood is a time of great development, and this includes the preteen years. Preteens experience a unique set of social and developmental milestones. These milestones are outlined in multiple developmental psychology theories and can influence how preteens cope with external situations and communicate with others. Some emotional and social milestones experienced by preteens include:

- developing more complex same-sex friendships;
- experiencing more peer pressure;
- becoming more aware of their bodies/developing body image; and
- experiencing an increase in sad moods, becoming more distant from family or being reluctant to give and receive affection.

These experiences and milestones can cause distress and can lead to preteens seeking counselling services (CDC, 2020).

While preteens will value counsellor availability, counsellors will have to communicate their availability with their clients to ensure they are not overworked.

## **Preteens in psychology: what age group is considered 'preteen'?**

In psychology, the term 'preteen' most commonly refers to the eight to 12 age group (Plester & Wood, 2009). Psychological researchers vary in the age



group they consider 'preteen', sometimes going as old as 15 years (Plester & Wood, 2009). However, most theories of developmental psychology consider children aged between eight and 12 to be preteen. This age group tends to have their own range of cognitive and developmental milestones separate to the ones faced by other age groups (Huitt & Hummel, 2003).

## **Popular applications and technological communication tools**

Easier and greater access to the internet and technological devices has resulted in preteens communicating in vastly different ways than previous generations.



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Preteens have found ways to communicate with others in a way that is comfortable for them, often involving social media or other text communications (Odgers & Robb, 2020). Popular social media apps amongst teenagers, such as Facebook, Instagram and Snapchat, have an age limit of 13 and over, making them unattainable to preteens. As a result, preteens often use tools such as email and text to communicate. While there is little evidence pertaining to the social media and technology use of preteens, 61 per cent of teenagers said they texted every day, 30 per cent said they emailed every day, and 30 per cent said they began this behaviour between the ages of seven and 11 (Common Sense Media, 2012).

### **How available should counsellors be to their preteen clients?**

The use of technology as a means of communication is on the rise, and the counselling profession has adopted many of these technological communication

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While preteens will value counsellor availability, counsellors will have to communicate their availability with their clients to ensure they are not overworked.

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techniques (Kottler, 2017). As a result of this, counsellors have become more available to their clients.

This increased availability of counsellors can be beneficial for preteen clients for a number of reasons. Younger clients value their autonomy while making connections with others. Being able to communicate with their counsellor in ways that are comfortable to them allows their needs for autonomy and connection to be met simultaneously (Gibson & Cartwright, 2014). However, being constantly available to their clients results in counsellors having

limited downtime, resulting in them becoming overworked and stressed (Kottler, 2017). Communication through technological means also poses confidentiality and security risks, due to the unstable nature of some technologies (Bond, 2015).

While technological communication between counsellors and clients can be beneficial for preteen clients, it is important for counsellors to set professional boundaries in order to maintain their wellbeing. It is also important to assess the risks that come from communicating client's personal matters through technological means. ■

## References

- Bond, T. (2015). *Standards and ethics for counselling in action* (4th ed.). SAGE Publications.
- CDC. (2020). *Child development: Middle childhood* (9-11 years old). Retrieved 12 August 2020, from <https://www.cdc.gov/ncbddd/childdevelopment/positiveparenting/middle2.html>
- Common Sense Media. (2012). *Social media, social life: How teens view their digital lives* [Ebook]. Retrieved from <http://www.common SenseMedia.org/sites/default/files/research/socialmediasociallife-final-061812.pdf>
- Gibson, K., & Cartwright, C. (2014). Young people's experiences of mobile phone text counselling: Balancing connection and control. *Children And Youth Services Review*, 43, 96-104. doi: 10.1016/j.chilcyouth.2014.05.010
- Huitt, W., & Hummel, J. (2003). Piaget's Theory of Cognitive Development. *Educational Psychology Interactive: Cognitive Development*.
- Kottler, J. (2017). *On being a therapist* (5th ed.). New York: Oxford University Press.
- Odgers, C., & Robb, M. (2020). *Tweens, teens, tech, and mental health: Coming of age in an increasingly digital, uncertain, and unequal world 2020* [Ebook]. Common Sense Media. Retrieved from <https://www.common SenseMedia.org/sites/default/files/uploads/pdfs/tweens-teens-tech-and-mental-health-full-report-final-for-web1.pdf>
- PediaPlex. (2020). *Child Counselling, Teen Counselling* [Image]. Retrieved from <https://pediaplex.net/blog/>
- Plester, B., & Wood, C. (2009). Exploring relationships between traditional and new media literacies: British preteen texters at school. *Journal Of Computer-Mediated Communication*, 14(4), 1108-1129. doi: 10.1111/j.1083-6101.2009.01483.x
- SentinelSource. (2012). *Guiding Good Choices Through Early Adolescence* [Image]. Retrieved from [https://www.sentinelSource.com/parent\\_express/big\\_kids\\_teens/guiding-good-choices-through-early-adolescence/article\\_f8ffd4e6-d74a-11e1-9b5e-001a4bcf887a.html](https://www.sentinelSource.com/parent_express/big_kids_teens/guiding-good-choices-through-early-adolescence/article_f8ffd4e6-d74a-11e1-9b5e-001a4bcf887a.html)
- Sunshine and Hurricanes. (2019). *Tech Rules for Teen and Tweens* [Image]. Retrieved from <https://www.sunshineandhurricanes.com/tech-rules-for-teens/#comments>

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# Understanding bulimia as an outcome of complex trauma

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Trauma treatment models may be critical in the fight against bulimia.

**Dr Antonia Saunokonoko**

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**B**ulimia nervosa (BN) and its treatment are subjects I am passionate about. I have lived it, researched it, written and made presentations about it, and I help others suffering with it. Every day, many Australians struggle through life as a consequence of existing in the grip of this tenacious and debilitating condition. There is no magic bullet that I know of to make BN disappear. Yet, I do know that hope for sufferers lies in practitioners and health providers taking a new look at bulimia and reframing the way it is understood.

BN is usually a chronic condition that worsens over time. It is characterised by the binge/compensation cycle of eating excessive amounts of food in a small window of time, followed by increasingly desperate compensatory actions aimed at avoiding weight gain, such as vomiting, fasting, overexercising and the use of diuretics and laxatives. Cases of BN are on the rise despite decades of attention from the research and medical communities and the mainstream media. The death rate from BN is one of the highest of all the conditions detailed in the *Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5)* (APA, 2013) and treatment success is worryingly scant. Of all individuals seeking treatment for BN, only around 15 per cent will achieve long-term recovery (Yu & Agras, 2013).

## Treatment options

The most troubling issue for me is that, regardless of the extensive existing (and growing) body of research into BN and the good intentions of practitioners, the leap has not yet been made from mapping out the common factors in the histories of those living with bulimia to successful treatment of this often-intractable condition.

## Cognitive behavioural therapy

Currently, the most often recommended treatment protocol offered to someone seeking help with BN is cognitive behavioural therapy (CBT), either with or without antidepressant medication. There are various forms of CBT available now, but the premise is the same: changing unhelpful beliefs can lead to changes in unhelpful behaviours.

It is easy to understand how this has emerged as the treatment of choice for the medical community. First of all, BN does appear to entail many flawed and unhelpful core beliefs, such as an obsession with weight and body shape that defines how the sufferer values



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themselves. On the surface, CBT would seem suitable for addressing these symptoms. Secondly, CBT fits well with quantitative methods of research and, as a modality, has legitimised its use with BN by producing the largest body of evidence-based literature on the condition. This is particularly because CBT practitioners have shown a commitment to research.

### Alternative treatment options

However, having conducted research into bulimia myself, I believe there is a reasonable rationale embedded in the beliefs and behaviours of BN that requires respect, attention and understanding. In addition, I have observed that an ongoing issue in the search for better treatment is that the type of research into BN given prominence by the Western medical model has arguably resulted in an overvaluing of CBT and an obscuring of the potential

of other treatment approaches informed by alternative value systems. This is substantiated by the fact that treatment success using CBT, measured in terms of achieving long-term meaningful recovery for the sufferer of BN, is being acknowledged by an increasing number of researchers as undeniably poor (Turner et al., 2015; Raykos et al., 2013; Keski-Rahkonen et al., 2009; Steinhausen & Weber, 2009; Walsh et al., 2000). Yet CBT remains the treatment option most frequently recommended by GPs and provided by outpatient services in Australia.

There has to be a better solution for those suffering with BN.

I conducted research at Torrens University into the father–daughter relationship and its impact on the development of BN (Saunokonoko et al., 2020). This intentionally sought to take an in-depth look at BN through an alternative lens,

taking the under-researched father–daughter attachment relationship as a starting point. Using an interpretive, qualitative methodology, this research was able to uncover aspects of BN that had so far gone unnoticed in the existing literature. As a result, a raft of new findings emerged that can help practitioners to redirect their thinking about BN and open new routes to treatment.

### Findings

The two most important findings were as follows: first, that BN should not be viewed as a ‘disorder’, but as an adaptive survival mechanism. It emerges in situations of complex trauma in the family, where repeated failures of attachment arise through fear, abuse, abandonment and lack of care. Second, that the binge/compensation mechanism that usually becomes visible in adolescence, and that currently

Viewing BN as an outcome of the experience of complex trauma in childhood implies adopting a different treatment protocol, one that follows the multi-modal, individualised complex trauma treatment model.

defines the condition of BN, is only a stage of bulimia's trajectory. In fact, BN emerges in early childhood. Concerns around body shape and weight, poor self-esteem, feelings of difference and unworthiness and struggles with perfectionism all develop much earlier than the binge/compensation cycle.

These findings provide for a more nuanced understanding of BN, contradicting assumptions made about BN in the DSM-5 and expanding understandings of why CBT has limited success with

bulimia. BN is a survival mechanism perfectly suited to providing distraction from fear, nurturing when no other form is available, and soothing of a heightened adrenal response.

But BN is not born out of cognitive processes. It resides deep within the limbic system of the brain, and is rooted in the unconscious, biological responses of fight, flight and freeze. Some of those living with bulimia are quite likely to find short-term relief through cognitive treatment because they may have learned to comply to survive.

However, CBT alone is unlikely to remove the profoundly felt sense that letting go of BN could mean the possibility of annihilation. This is why, longer term, the symptoms of bulimia usually return.

### **Making change**

Viewing BN as an outcome of the experience of complex trauma in childhood implies adopting a different treatment protocol, one that follows the multi-modal, individualised complex trauma treatment model. This aims to initially address

(continued page 58)

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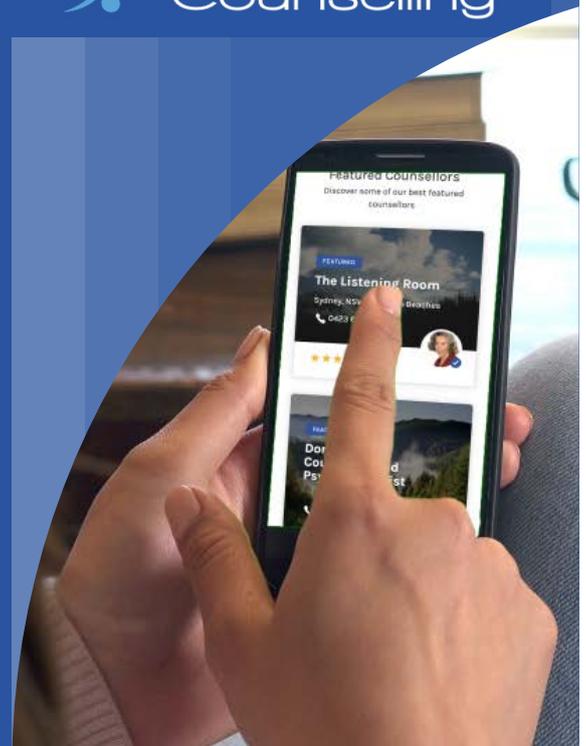
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the issue of safety between client and practitioner, followed by a slow unpacking of traumatic experience and learned beliefs, and culminating in a focus on resilience in relationship building that can be carried into everyday life. This would seem to be a more appropriate way forward and one that is already gathering support from researchers (Hicks White et al., 2018; Freudenberg et al., 2016; Munchel, 2013). It also implies that earlier detection and intervention, through schools, GPs and social services, is possible and necessary to avoid development of the later stages of the condition, when treatment success is so much harder to effect.

Practitioners who choose to familiarise themselves with the trauma treatment model may wish to start building referral networks of like-minded practitioners working across a variety of trauma-focused modalities. This may place them in a far stronger position to help a client presenting with bulimia than for those offering CBT and working alone. Practitioners should consider creating bespoke teams in the interests of each client, facilitating their clients' engagement in a range of trauma-focused options – such as Somatic Experiencing, trauma-focused yoga, eye movement desensitisation and reprocessing, equine therapy, Brainspotting and 12-step programs – alongside one-to-one talking therapy of any modality. This can play a powerful role in helping clients to willingly let go of bulimia by helping them to find more successful ways to regulate emotion, build meaningful connections and live more manageable, contented lives.

Developing BN need not imply a lifetime of suffering. However, there does need to be a shift in approach to treatment, made in acceptance of increasing evidence that CBT and medication alone are not the answer. I believe, having spoken extensively to sufferers, those in recovery from BN and specialist practitioners, that complex trauma lies at the heart of bulimic symptoms. Since we already have tools designed to help address traumatic experience, it is essential that we start offering this knowledge and support to those with bulimia who are seeking deeper healing and long-term relief. ■



#### About the author

Dr Antonia Saunokonoko is a psychotherapist in private practice. She specialises in helping people recover from eating disorders, alcoholism and other addictions. Her practice is based in central Sydney and her qualifications include: PhD (Health), MCAP, PG Cert Exist. Psychother.; MA(Oxon); BA(Hons).

#### References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders*. (5th ed.). American Psychiatric Association.
- Freudenberg, C., Jones, R. A., Livingston, G., Goetsch, V., Schaffner, A., & Buchanan, L. (2016). Effectiveness of individualized, integrative outpatient treatment for females with anorexia nervosa and bulimia nervosa. *Eating Disorders*, 24(3), 240-254.
- Hicks White, A. A., Pratt, K. J., & Cottrill, C. (2018). The relationship between trauma and weight status among adolescents in eating disorder treatment. *Appetite*, 129, 62-69.
- Keski-Rahkonen, A., Hoek, H. W., Linna, M. S., Raevuori, A., Sihvola, E., Bulik, C. M., Rissanen, A., & Kaprio, J. (2009). Incidence and outcomes of bulimia nervosa: A nationwide population-based study. *Psychological Medicine*, 39, 823-831. <https://doi.org/10.1017/S0033291708003942>
- Munchel, W. (2013). *Trauma informed care meets pharma informed care*. [www.madinamerica.com/?s=Trauma+informed+care+meets+pharma+inforinf+care&submit=Search](http://www.madinamerica.com/?s=Trauma+informed+care+meets+pharma+inforinf+care&submit=Search)
- Raykos, B. C., Watson, H. J., Fursland, A., Byrne, S. M., & Nathan, P. (2013). Prognostic value of rapid response to enhanced cognitive behavioural therapy in a routine clinic sample of eating disorder outpatients. *International Journal of Eating Disorders*, 46, 764-770.
- Saunokonoko, A. J., Mars, M., & Sattmann-Frese, W. J. (2020). *An exploration of the father-daughter relationship and its impact on the development of bulimia nervosa* [Manuscript submitted for publication]. Department of Health, Torrens University Australia.
- Steinhausen, H.-C., & Weber, S. (2009). The outcome of bulimia nervosa: Findings from one-quarter century of research. *The American Journal of Psychiatry*, 166(12), 1331-1341. <https://doi.org/10.1176/appi.ajp.2009.09040582>
- Turner, H., Bryant-Waugh, R., & Marshall, E. (2015). The impact of early symptom change and therapeutic alliance on treatment outcome in cognitive-behavioural therapy for eating disorders. *Behaviour Research and Therapy*, 73, 165-169. <https://doi.org/10.1016/j.brat.2015.08.006>
- Walsh, B. T., Agras, W. S., Devlin, M. J., Fairburn, C. G., Wilson, G. T., Kahn, C., & Chally, M. K. (2000). Fluoxetine for bulimia nervosa following poor response to psychotherapy. *The American Journal of Psychiatry*, 157(8), 1332-1334. <https://doi.org/10.1176/appi.ajp.157.8.1332>
- Yu, J., Agras, W. S., & Bryson, S. (2013). Defining recovery in adult bulimia nervosa. *Eating Disorders*, 21, 379-394.

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*Counselling Australia* is designed to inform and discuss relevant industry issues for practising counsellors, students and members of the Australian Counselling Association. It has an editorial board of experienced practitioners, trainers and specialists. Articles are invited to be peer-reviewed and refereed or assessed for appropriateness by the editor for publishing. Non-editorial staff may assess articles if the subject is of a nature as to require a specialist's opinion.

The quarterly journal is published every March, June, September and December.

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