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Case Report

Two case reports: 'delusions' arising in virtual reality

Bradley Hillier[1,3], Faisil Sethi[2,3]

[1]Locum ST4-6 Psychiatrist; [2]Consultant Psychiatrist; [3]South London and Maudsley NHS Foundation Trust, Maudsley Hospital, London, UK

Abstract

The role of the internet is increasingly pertinent in the daily lives of both clinicians and patients. We present two case reports, concerning patients recently presented to our service, involving beliefs concerning the social media website, Facebook. We consider the basis of a delusional experience from both categorical and dimensional perspectives. We consider the context of the nature of social networking media and the internet, including examples of how it has been used therapeutically, as well as the potential for detrimental use. Whilst keeping the principle of a delusion in mind we also explore some of the challenges that are presented in the assessment of such beliefs and how, or indeed whether, to incorporate them into the understanding of a patient's presentation. We also briefly consider the impact that beliefs arising from and incorporating social media and the internet may have on the practice of clinicians, descriptive phenomenology research, diagnosis and management of mental disorder.

Keywords

Delusions; social media; descriptive phenomenology; dimensional; categorical

INTRODUCTION

Technological advances in media have historically been noted to impact on the presentation and assessment of mental illness. In the mid-1970s, Wadeson & Carpenter (1976) described the impact of television in hospital on the formation of patients' delusions. Since the early 1990s the internet has played an increasingly prominent role in the daily lives of mental health professionals and our patients. There has been active debate within recent years in the psychiatric literature regarding the increasing preponderance of 'internet addiction' (Starcevic, 2013), with 'internet use disorder' being included in Section 3 of the DSM-5 (DSM-5 Taskforce, 2012: *Recent updates to proposed revisions for DSM-5*; http://www.dsm5.org/Pages/RecentUpdates.aspx). In our anecdotal experience it is also becoming increasingly common for patients to present with beliefs arising from the internet, and in particular social networking and social media sites.

In our own clinical experience this has become increasingly relevant, to the extent that we have found it helpful to familiarise ourselves further with the extent of social media and networks that are accessible to our patients. In doing so, we have highlighted challenges which strike at the core of the psychiatrist's role in making an assessment of whether an experience is to be considered 'delusional', or might have a reality-basis. The implications of how a psychiatrist assesses and incorporates a patient's reports of experiences involving the internet or social media may, if used

Correspondence to: Dr Bradley Hillier, South London and Maudsley NHS Foundation Trust, Maudsley Hospital, Denmark Hill, London. E-mail: bradley.hillier@gmail.com
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as evidence of mental disorder, lead to diagnostic classification. We explore, through two cases presented to our service, the potential confusion that can arise from patient-reported internet-based experiences, and discuss potential strategies that can be used to approach them from a psychiatric perspective.

CASE REPORT ONE

Patient X is a woman in her twenties with a historical diagnosis of bipolar affective disorder, and two brief admissions in the previous three years. Prior to admission to our service, X had remained awake for 48 hours, with increasing levels of distress focusing on the belief that people were spreading rumours about her mental health on the social media site Facebook. X had resorted to calling the police, and attempted to have her Facebook profile shut down. She was taken by her family to an emergency department from which she was subsequently admitted to hospital. It was established that X had been non-compliant with mood-stabilising medication for at least two weeks prior to admission, during which time she had been becoming increasingly distressed. X was initially admitted to the general psychiatric ward, remaining fixedly distressed regarding Facebook, and becoming agitated about not being able to access it from the hospital. X also presented with pressure of speech, flight of ideas, disinhibition and assaultative behaviour that it was not possible to manage on the general psychiatric ward. X quickly required transfer to a psychiatric intensive care unit (PICU).

During the admission on PICU, X remained preoccupied about people writing rumours on Facebook, and continued to feel the need to act on this. On deeper questioning it became clear that X was concerned that the Newsfeed feature of Facebook was distributing personal mental health information contributed by others, with the seeming character of referential delusions. However, during one visit to the unit, X's friends confirmed to nursing colleagues that people had indeed been writing unpleasant things about X on Facebook, although they did not elaborate on what exactly was written.

X improved in terms of the classical symptoms of mania through treatment with a combination of mood-stabilising and antipsychotic medication, previously found to have been of benefit during previous relapses. Upon recovery X stated the intention to remove any profile from Facebook.

CASE REPORT TWO

Patient Y is a woman in her twenties with an established diagnosis of bipolar affective disorder and a history of previous admissions to hospital. Y presented to services when neighbours become concerned about noises coming from her flat, as well as evidence of disinhibited behaviour. Y was brought to hospital by the police under a mental health police holding power (UK Section 136, Mental Health Act 1983) and was assessed as presenting with irritability, hostility, aggression, violence, thought disorder and grandiose beliefs in keeping with a manic relapse. Y was subsequently detained under the Mental Health Act 1983. It was initially very difficult to obtain a clear history of the precipitants of the admission owing to thought disorder and agitation, but gradual improvements in mental state with treatment in the form of antipsychotic and mood-stabilising medication allowed this to occur. Y reported having been contacted by a previous partner through the messaging function of the Facebook website, and although unwilling to elaborate on the content of the message stated it had been distressing. Y attributed, in part, the deterioration in mental state to this communication, and resolved to 'block' this person in her Facebook contacts list.

In Y's case, the initial mental state was in keeping with a manic relapse with psychotic features, with the contact occurring through Facebook providing a persecutory flavour to the experience.

DISCUSSION

The two cases above highlight a number of important concepts in the assessment and treatment of mental disorder. Firstly is the challenge of determination; at what point can a belief be classified as a delusion. Second is the recognition of how an understanding of the way in which social media interact with reality may affect the way in

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which it is interpreted by professionals attempting to confirm or exclude delusions. Finally, whether currently utilised convention in descriptive psychopathology is sufficiently equipped to, or indeed whether it should, incorporate experiences that arise from social media.

Defining a delusion

Oyebode (2008), whilst acknowledging that the absolute definition of a delusion from a phenomenological perspective is impossible, attempts to assist in conceptualising a delusion through having the characteristic features:

1. A false, unshakeable idea or belief;
2. Out of keeping with the patient's educational, cultural and social background;
3. Held with extraordinary conviction and subjective certainty.

Delusions can arise *de novo* (primary) or subsequent to another psychopathological process such as hallucinations (secondary). They can be defined categorically based on content, such as persecutory, nihilistic, referential, grandiose, misidentification, as well as from a dimensional perspective. Delusional beliefs are perceived by the individual as completely authentic, unquestionably correct and undeniable, even in the face of evidence to disprove or show that the contrary is true. From a phenomenological assessment perspective it is important to bear in mind that there are very few things that are not prone to subjective assessment; this is a frequent criticism of the field of mental health in its attempts to categorise some beliefs as delusional. Dimensional evidence concerning how someone reached a belief can be vital here, as well as an informed attempt to quantify, through known likelihood or probability, that a belief is delusional. Nevertheless, the 'gold standard' of diagnosing a delusion is clearly to provide incontrovertible evidence that the belief cannot be true.

Dimensional characterisation of delusions

A dimensional approach to the assessment of delusions has gained increasing momentum in recent years, at least in part on the basis that some of the content-based traditional associations (e.g. mood-congruent delusions in affective psychosis; bizarre delusions of Scheiderian type in schizophrenia) are subject to violations. The Maudsley Delusions Assessment Scale (as described by Wessely et al. 1993) is an example of a scale that has been developed to quantify dimensions of delusional beliefs. The items are: conviction (how sure are you about X?); belief maintenance factors; affect relating to chosen belief; action (does X make you do anything in particular?); preoccupation; systematisation; and insight.

Along the delusional dimensional continuum of conviction is the over-valued idea. Again, according to Oyebode (2008), this is usually an acceptable and comprehensible idea that is pursued by the patient beyond the bounds of reason. Using the example of Facebook, the following scenario can demonstrate this: an individual may identify that someone has hacked into their personal account, the individual alerts Facebook and rectifies the situation; all reasonable possibilities. In the case of this being held by this individual as an overvalued idea, the individual may start to take excessive and extreme security measures on anything to do with an interface with the internet or electronics to the point that they may withdraw all their money from their bank, stop using any form of credit or debit card, and stop using any computer that may be connected to the World Wide Web. Interestingly, such overvalued ideas are not infrequently associated with particular personality types, such as paranoid personality disorder (Oyebode, 2008), alluringly hinting at a possible shared underlying mechanism.

Internet-based social media

Social media can be defined as 'websites and applications that enable users to create and share content or to participate in social networking' (Oxford English Dictionary, 2009). This tends to occur through various internet sites, the most well known of which may arguably be Facebook, estimated to have over one billion 'member profiles' registered. Other social networks can have a professional networking emphasis (e.g. LinkedIn), can allow sharing of media (e.g. YouTube), personal opinion and news (e.g. Twitter and

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other 'blogs'), or can be used to send instant private messages to individuals through specific messenger services (e.g. Microsoft Messenger), including photographs, videos and other media. Social media have become one of the most important and powerful ways in which news is shared (NM Incite, 2012: *State of the media: the social media report;* http://blog.nielsen.com/nielsenwire/social/2012/) as well as having obvious business and marketing roles, and at times, political sensitivity. In countries such as China, for example, state-sponsored social media networks serve a similar function to Facebook, but are censored, particularly when politically sensitive topics are discussed.

Social media interface practically with reality. In general, an individual is able to create a 'profile' using their personal information and an email address, which may not reflect their true identity. From this point it is possible to load information relating to themselves and others onto their personal page ('posting'). This may includes photographs, videos, comments, discussion of topics and personal views, and information that relates both to themselves and to other people. It is possible to post on one's own personal page (or 'wall') and also onto the 'wall' of other users, and it can be difficult to moderate. Indeed the social media site Twitter has made headlines in the UK press recently owing to it being used as a source by journalists and leading to legal proceedings (Tweed, 2012: *Lord McAlpine and the high cost of tweeting gossip:* http://www.guardian.co.uk/law/2012/nov/27/lord-mcalpine-twitter-libel).

The use of the internet for bullying and stalking (Mullen, 2009) has been reported and more recently suggested as a means of carrying out sexual abuse towards children by sexual predators from overseas, allegedly hacking into children's accounts on such sites and blackmailing them into performing sexual acts over webcams (Johnson, 2013: *British children 'sexually abused on social media by paedophiles overseas':* http://www.telegraph.co.uk/news/uknews/crime/9795677/British-children-sexually-abused-on-social-media-by-paedophiles-overseas.html).

Social media have also been harnessed to facilitate improvements in mental health and engagement of services, in particular through the 'second life' program concept. In this form of social media people are able to create 'avatars' (a virtual and graphic representation of the user's alter ego) who inhabit a virtual world, interact with other avatars, form relationships, buy property using virtual currency, have jobs and roles and literally form a second life in a virtual cyberspace world for those who inhabit the real world. This concept and interface has been used to positive benefit by a number of NHS mental health organisations, as a means of improving engagement with individuals who might otherwise not access mental health services, according to a recent article in The Economist (Anon. 2010: *The Avatar will see you now:* http://www.economist.com/node/13899038?story_id=13899038).

A clear theme that emerges when considering social media and its use, is how users may choose, if they so wish, to obscure their identity (potentially 'depersonalising' their interaction with others) whilst at the same time gaining an unprecedented access to more people. For example, in the context of the second life program described above, this anonymity may open up a powerful way of engaging people who may otherwise be reticent or afraid of engaging with mental health services owing to the fear of perceived stigma. These patients may obtain some form of therapeutic benefit; however it may also heighten a sense of paranoia, and as already noted quality control is probably not inherent in the system.

It is perhaps striking when considering how much opportunity there is for 'virtual reality' to interact with true reality, and given the reported numbers of individuals who have 'profiles' and 'avatars' that situations incorporating them are not more frequently seen in everyday psychiatric practice.

Should internet-based 'delusions' be incorporated as diagnostic evidence?

There has been considerable discussion in the psychiatric literature as to whether delusions arising or incorporating the internet should form a new category of descriptive phenomenology

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(e.g. Lerner et al. 2006), which argues that delusions that arise through, or involve the internet are already sufficiently accommodated in existing psychiatric phenomenology; as such when so classified these delusions have been described as 'old wine in new bottles' (Stompe et al. 2003). However, our two case reports lead to different questions:

1. Do we as clinicians know enough about the impact of the internet on mental health, the prevalence of internet-based experiences in patients and the range of potential real experiences to be able to say with any certainty that our patients' experiences are delusional?
2. If so, do existing categorical classifications help us to characterise the experience?
3. Is there an alternative way in which the experience can be assessed and incorporated into management?

Both of our cases raised an initial suspicion of a 'persecutory flavour' which may have reflected the mental state in both cases, but could not be truly considered delusional, despite a suspicion that a delusional process may be at play. Indeed for at least one, patient X, the belief appeared at least in part to be valid. In both cases, significant levels of distress were due to events that were presented as occurring either within, or arising from, cyberspace. We also note that both of our patients were under the age of 30, both reported using the internet on a daily basis, and were aware of the various social networking sites available. This leads us to consider whether, for such beliefs, an assessment using a dimensional approach may be more useful, through assessing the impact of the belief on the life of the individual rather than attempting to categorise and incorporate it into a traditional diagnostic rubric.

CONCLUSION

Paranoid or persecutory beliefs that appear to arise from the internet or virtual reality experiences may be viewed with uncertainty and possibly even suspiciously by mental health professionals, with the potential risk of being interpreted as evidence of mental disorder. This may understandably be the case if present with other active symptoms of mental illness. Although we do not dispute that existing phenomenological classification is able to accommodate such delusions to some extent, and where appropriately diagnosed may well be 'old wine in new bottles', we would highlight the potential risk of categorically identifying a delusion in this context.

Through greater appreciation of the extent to which 'virtual reality life' is available to patients, as well as the increasing numbers globally who engage in it, and the age demographics of this group, clinicians may find that such beliefs do warrant further investigation. In the same way in which psychoanalytic psychotherapy has provided insights into the nature of the mind through the exploration of art and culture, so this medium forms another rich source where human behaviour can be studied; something as increasingly present in the everyday life of our patients as social media and the internet should involve at least a cursory exploration of the potential that it provides for psychopathology.

It is possible that accurate reports of 'virtual reality' may be common (or rare) in the context of mental illness. Our own experience is anecdotal and at present it appears that there is little research providing further quantification and characterisation of this phenomenon. Future research (particularly epidemiologically focused) may provide further insights into these matters. Such clarification may guide clinicians on whether their own understanding of internet media should be improved to assist in understanding patient experience, and in order that mental disorder incorporating it can be diagnosed and treated using a more informed probability-based approach. We acknowledge that owing to the particular difficulties in verifying internet-based experience (e.g. anonymity issues) this may be a significant challenge.

It is our suggestion that given that reported beliefs associated with social media and the internet form a particular example where our understanding remains poor, their characterisation through a dimensional approach may prove more useful to assessing clinicians. In this way such beliefs may share features with those

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incorporating the occult or religion. Over time, as research informs our understanding of this area, we anticipate that further elaboration of existing psychopathological classification systems may need to adapt to incorporate an increased understanding.

References

Lerner, V., Libov, I. and Witztum, E. (2006) 'Internet delusions': the impact of technological developments on the content of psychiatric symptoms. *Israel Journal of Psychiatry and Related Sciences*. 43(1): 47–51.

Mullen, P. (2009) Cyberstalking. In: Mullen, P., Pathe, M., Purcell, R. (eds). *Stalkers and their victims*. 2nd edition. Cambridge University Press, pp. 152–156.

Oyebode, F. (2008) *Sims' Symptoms in the Mind: An introduction to descriptive psychopathology*. 4th edition. Saunders, 484 pp.

Oxford English Dictionary (2009) 3rd edition. Oxford University Press.

Starcevic, V. (2013) Is internet addiction a useful concept? *Australian and New Zealand Journal of Psychiatry*. 47(1): 16–19.

Stompe, T., Ortwein-Swoboda, G., Ritter, K. and Schanda, H. (2003) Old wine in new bottles? Stability and plasticity of the contents of schizophrenic delusions. *Psychopathology*. 36(1): 6–12.

Wadeson, K. and Carpenter, W.D. (1976) Television in the hospital: programming patients' delusions. *American Journal of Orthopsychiatry*. 46: 434–438.

Wessely, S., Buchanan, A., Reed, A., Everitt, B., Garety, P. and Taylor, P.J. (1993) Acting on delusions. I. Prevalence. *British Journal of Psychiatry*. 163: 69–76.

https://doi.org/10.1017/S1742646413000174 Published online by Cambridge University Press