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Compulsive Internet use and workaholism: An exploratory two-wave longitudinal study

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ABSTRACT

Workaholism refers to the uncontrollable need to work and comprises working compulsively (WC) and working excessively (WE). Compulsive Internet Use (CIU), involves a similar behavioural pattern although in specific relation to Internet use. Since many occupations rely upon use of the Internet, and the lines between home and the workplace have become increasingly blurred, a self-reinforcing pattern of workaholism and CIU could develop from those vulnerable to one or the other. The present study explored the relationship between these compulsive behaviours utilizing a two-wave longitudinal study over six months. A total of 244 participants who used the Internet as part of their occupational role and were in full-time employment completed the online survey at each wave. This survey contained previously validated measures of each variable. Data were analysed using cross-lagged analysis. Results indicated that Internet usage and CIU were reciprocally related, supporting the existence of tolerance in CIU. It was also found that CIU at Time 1 predicted WC at Time 2 and that WE was unrelated to CIU. It is concluded that a masking mechanism appears a sensible explanation for the findings. Although further studies are needed, these findings encourage a more holistic evaluation and treatment of compulsive behaviours.

1. Introduction

McKinsey Global Institute's (2011) pioneering study reported that the Internet accounted for 21% of GDP growth over the last five years among the developed countries (i.e. consumption, supply, and job creation), with two-thirds of this growth falling outside the technology sector. The report concluded that companies' competitive advantage depends to a great extent on how they exploit Internet opportunities. In the UK, an estimated 90% of jobs require at least some level of digital literacy skills and frequent use of Internet-enabled tools (Knight, 2011). Within this context, the pervasive presence of the Internet within organizations is unlikely to diminish. Sophisticated but increasingly accessible technology has also transformed the traditional boundaries between home, and the workplace enabling many employees to adopt flexible work arrangements including working from home (Maitland & Thomson, 2011). Although the latter has advantages such as increasing perceived control over one's work (e.g., Mazmanian, Orlikowski, & Yates, 2013), it can also threaten an employee's physical and psychological wellbeing. Consequently, psychological detachment during out-of-work hours has become more challenging for many, with mobile devices (such as Wi-Fi enabled laptops, tablets, and smartphones) contributing to semi-automatic responses that bypass conscious differentiation between ability to respond and obligation to do so (Barber & Jenkins, 2014; Derks, van Mierlo, & Schmitz, 2014; Porter & Kakabadse, 2006; Sonnentag, Binnewies, & Mojza, 2008). This development, together with the rise in the costs of living that is often unmatched with proportional growth in wages, is contributing to greater work intensification (Kakabadse, Kouzmin, & Kakabadse, 2000; Quinones, 2016). Within this context, it has been argued that those with vulnerability to either working compulsively, or using the Internet compulsively, could develop both problematic behaviours in a self-reinforcing cycle pattern (Porter & Kakabadse, 2006).

Working long hours, beyond what is expected in order to meet reasonable work goals is a central element of 'workaholism' (e.g. Porter & Kakabadse, 2006). In addition to working excessively,

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Oates' (1971) original definition also suggests a compulsive way of working in that there is an "uncontrollable need to work incessantly" (p.11). Based on this, researchers commonly conceptualize workaholism in terms of two dimensions. These are a cognitive dimension of obsession with work or 'working compulsively' and a behavioural dimension of 'working excessively' (e.g. Schaufeli, Shimazu, & Taris, 2009). Research into workaholism has steadily increased, and the negative consequences on employee wellbeing have been widely reported (e.g., Andreassen, Griffiths, Hetland, & Pallesen, 2012; Andreassen, Ursin, & Eriksen, 2007; Burke, 2001; Griffiths & Karanika-Murray, 2012; Van Beek, Taris, & Schaufeli, 2011).

In contrast, Compulsive Internet Use (CIU) is a more recent phenomenon, which nonetheless displays a similar behavioural pattern to working compulsively. Compulsive internet use refers to the "pattern of internet use characterized by loss of control, preoccupation, conflict, withdrawal symptoms, and use of the Internet as a coping strategy" (Meerkerk, van den Eijnden, Franken, & Garretsen, 2010, p. 729). Debates as to whether this maladaptive behaviour should be called "addiction" are still ongoing. Those against the use of the term argue that this can result in the trivialization of the devastating impact of substance-based dependencies. However, the definition and operationalization of CIU builds on and reflects the key dimensions of the most widely accepted model of behavioural addictions (Buckner, Castille, & Sheets, 2012; Caplan, 2003; Young and Rogers, 1998). Importantly, like compulsive workers, who experience loss of control over work and interpersonal conflict [e.g., Bakker, Burke, & Demerouti, 2009], compulsive Internet users experience a loss of control over their Internet use and conflicts with their personal and working lives (Casale, Fioravanti, Flett, & Hewitt, 2015; Greenfield, 1999; Griffiths, 2000; 2010a; Kuss, Griffiths, Karila, & Billieux, 2014; Meerkerk et al., 2010; Quinones & Kakabadse, 2015).

Workaholics' urges are becoming ever easier to fulfil thanks to technology advancements (Ng, Sorensen, & Feldman, 2007; Porter, 2001). Simultaneously, constant Internet access at work, may facilitate compulsive use in those individuals highly engaged with it in their personal lives (Porter & Kakabadse, 2003). In addition to enhancing problematic behaviours, some authors have argued that both workaholism and CIU could be causally related (Porter & Kakabadse, 2006). In fact, there is preliminary evidence showing the existence of mutually reinforcing cycle of CIU and workaholism (Porter & Kakabadse, 2003). However, to the present authors' knowledge, such a relationship has only ever been demonstrated in one qualitative study. Therefore, the first objective of the present study was to explore the extent to which reciprocal relationships between CIU and workaholism actually exist utilizing a two-wave longitudinal design. Furthermore, since the CIU literature relies largely on cross-sectional data, and little is known about the temporal relationships of commonly discussed correlates, the present study explored the relationships between CIU and hours of Internet use, whilst controlling for the Big Five personality factors.

2. Literature review

Emerging evidence has demonstrated that addictions (both chemical and behavioural) share similar courses, histories, and neurobiological correlates (Orford, 2001; Grant, Potenza, Weinstein, & Gorelick, 2010; Volkow and Li, 2005). This has encouraged researchers to study patterns of co-occurrence as this can lead to adopt a holistic approach to prevent and treat such problems effectively (Shaffer et al., 2004). However, studies reporting co-occurrence of multiple addictions are scarce, and those that exist, have traditionally relied on teenage samples. A notable exception is that of Sussman, Lisha, and Griffiths (2011) who conducted a meta-analysis with (mainly) US adult populations. The authors estimated that around 47% of the American population experience an addiction to one of eleven substance and behaviours over a 12-month period, and found 23% of co-occurrence between two or more of these addictions (i.e., cigarettes, alcohol, hard drugs and the behavioural included eating, gambling Internet, shopping, love, sex, exercise and work). Based on methodologically flawed literature, the authors tentatively estimated that Internet addicts had a 10% chance of also being workaholics, and that workaholics had a 20% chance of being Internet addicts. However, since that study was published, there has been a significant increase in research into both Internet addiction (Kuss et al., 2014) and workaholism (Andreassen et al., 2014).

The addiction literature suggests that excessive appetite for a particular object often co-exist with appetite for another one if both objects are frequently found in the same context simultaneously (Griffiths, 2005; Miller, 1980; Orford, 2001). For instance, coffee, which can be found at work and at home, can aid alertness and productivity. Workaholism and coffee drinking often co-occur, and when they do, they likely reinforce each other (Porter & Kakabadse, 2006). Similarly, work and technology are often intertwined and work is reliant on the use of technology. It has also been suggested that excessive use of technology can be justified through work (Porter, 2001). In this sense, problems controlling the engagement in one behaviour, may be related to problems in the other. Both workaholism and CIU have been extensively studied separately (e.g., Griffiths, 2010; Meerkerk et al., 2010; Ng et al., 2007), however, studies examining co-occurrence are scarce. An exception to this are the studies conducted by Porter and Kakabadse (2003, 2006). The authors conducted a qualitative study with IT professionals and concluded that compulsive work and compulsive Internet use were mutually reinforcing each other. The actual mechanisms explaining mutual causation beyond shared exposure were not really unpacked by these authors. In order to understand potential mechanisms between these two behaviours the present authors build on the syndrome model of addiction (Shaffer et al., 2004; Kuss et al., 2014) and more specifically in the addiction interaction model (Carnes, Murray, & Charpentier, 2005).

According to Shaffer et al. (2004), exposure, degree of accessibility, and interaction with a specific object will determine the type of addiction a vulnerable individual is likely to develop. The model predicts that those individuals who develop an addiction (behavioural or chemical) experience an alteration of their reward system that increases their likelihood of developing new ones in relation to objects that they are frequently exposed to (Shaffer et al., 2004). Similarly, Sussman et al. (2011, 2012) argue that the type of behavioural addiction individuals are likely to develop following a previous one can be predicted from the individuals' lifestyles. It follows that those who exhibit compulsive working patterns, within contemporary working environments (where they are also highly exposed and in constant interaction with Internet), could well be at potential risk of developing compulsive Internet use. This could also happen the other way around. Thus, those who display compulsive Internet behaviour who also use the Internet for work purposes might end up developing compulsive working patterns (Porter & Kakabadse, 2006).

Carnes et al.'s (2005) model of addiction interaction disorder explores different mechanisms that may explain how two or more addictions appear linked in a given individual, and not only co-occur but reinforce each other becoming "packages". A particularly interesting process that might be relevant in the case of work and the Internet use is the masking process. This mechanism describes how individuals engage in a more socially acceptable addiction as a strategy to hide or cover an addiction that is less socially acceptable. As opposed to CIU, workaholism is socially acceptable and even rewarded, to the extent to which the