

Beyond the myths about work addiction: Toward a consensus on definition and trajectories for future studies on problematic overworking

*A response to the commentaries on: Ten myths about work addiction
(Griffiths et al., 2018)*

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In an unprecedented collaborative effort to integrate the existing knowledge on work addiction and delineate trajectories for future studies, several papers from work addiction researchers (including some of the most prolific experts in the field) have contributed to the debate on the misconceptions/myths about this problematic behavior. On the basis of the overview of the presented arguments, the most commonly proposed recommendations were that there should be: (a) a general definition of work addiction, (b) the need for more transdisciplinary and integrative approach to research, and (c) propositions regarding more high-quality research. These three aspects are summarized in the present paper. There is a general agreement among work addiction researchers that work addiction is a problematic behavior that merits more systematic studies, which require input and expertise from a wide range of fields due to its complex nature.

Keywords: workaholism, work addiction, problematic overworking, problematic work, behavioral addiction

INTRODUCTION

In a collaborative effort to integrate the existing knowledge on work addiction and delineate trajectories for future studies, eight commentaries by 15 authors responded to our deliberately provocative debate paper (Griffiths, Demetrovics, & Atroszko, 2018) concerning 10 proposed myths about work addiction (i.e., Andreassen, Schaufeli, & Pallesen, 2018; Kun, 2018; Lior, Abira, & Aviv, 2018; Loscalzo & Giannini, 2018a; Malinowska, 2018; Quinones, 2018; Sussman, 2018; Tóth-Király, Bóthe, & Orosz, 2018). The researchers participating in this debate are among authors with the highest number of papers on work addiction indexed in the *Web of Science* that were published during the past decade, and seven of these researchers wrote review papers on work addiction during that period (Andreassen, 2014; Andreassen & Pallesen, 2016; Griffiths et al., 2018; Griffiths & Karanika-Murray, 2012; Quinones & Griffiths, 2015; Sussman, 2012). Consequently, the ensuing debate can arguably be considered to reflect the opinions of a fairly representative group of researchers who contribute some of the highest quality research in the field and who frequently review the existing literature. It is an unprecedented and highly appreciated endeavor in this area of research to attempt to jointly develop consensus regarding current status of

work addiction as well as to provide diverse perspectives on crucial areas for further investigation.

In general, many important arguments were made on particular myths supported with extensive and diverse references, significantly contributing to broadening the perspectives on the issue and expressing the need for further clarification of particular questions. Nevertheless, there was a reasonably high level of consensus among the commenting researchers concerning the myths (Table 1). Most notably, none of the commentators had any doubts that the data gathered during few decades of research support the notion that work addiction is a problematic behavior, even though more high-quality data are needed to have a better understanding of its symptoms, etiology, epidemiology, course, treatment, and prognosis. Andreassen et al. (2018, p. 858) think that the field is still “in its infancy,” which can be read as an expression of the most rigorous standards of scientific inquiry.

One of the inciting factors for this debate was misconceptions about work addiction research propagated in the addiction literature (Atroszko, 2019; Karderfelt-Winther et al., 2017, p. 1711; Starcevic, Billieux, & Schimmenti, 2018, p. 920).

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Table 1. Summary of commentaries on points of agreement concerning work addiction

Myth	Points of agreement	Remarks
1 Work addiction is a new behavioral addiction	There is general agreement that work addiction has been recognized and studied for decades	Most studies were carried out during the past decade but more data from good quality research are needed
2 Work addiction is similar to other behavioral addictions	All addictions are similar in some ways as well as specific. There is need to both emphasize addictive mechanisms common to all addictions and take into account specific characteristics of particular behavior	The fact that work is widely perceived as productive and positive activity was identified by some commentators as a crucial factor hindering wider acknowledgement that for some individuals it could be a devastating addiction
3 There are only psychosocial consequences of work addiction	There is general agreement that work addiction is associated with a wide range of negative consequences.	More high-quality studies on the causal mechanisms are needed to understand when and how work addiction results in harm. In addition, more studies on the consequences for the family of work addicts are needed
4 Work addiction and workaholism are the same thing	A clear and widely accepted definition of work addiction and workaholism is needed	Work addiction and workaholism could be used to denote problematic overinvolvement in work and in such case are synonyms, and some argue that we should aim at clarifying that within research community and among general public. It has to be acknowledged that it is difficult to control natural usage of these terms in language
5 Work addiction occurs as a consequence of individual personality factors	There is general agreement that the factors that contribute to work addiction go far beyond personality alone and more research on meso- and macro-level factors contributing to work addiction is needed	More transdisciplinary research on environmental, social, economic, political, and cultural factors is needed
6 Work addiction only occurs in adulthood	Researchers agree that theoretically there could be forms of work addiction appearing in adolescence (as well as late adulthood) but more empirical evidence is needed	More research and conceptual clarification on study addiction (Atroszko, Andreassen, Griffiths, & Pallesen, 2015, 2016a, 2016b) and other types of work addiction outside professional career is needed (Lior et al., 2018; Sussman, 2018)
7 Some types of work addiction are positive	There is general agreement that work addiction is a problematic behavior leading to negative consequences	Work addiction should be carefully distinguished from the concept of work engagement/harmonious passion defined as positive phenomenon. The role of initial pleasure in addiction should be taken into account (Andreassen et al., 2018; Sussman, 2018)
8 Work addiction is a transient behavioral pattern related to situational factors	Commenting researchers agree that there is evidence for the persistence of work addiction in a minority of individuals	Environmental factors (stress) triggering and regulating addiction should be taken into account in congruence with the existing addiction models
9 Work addiction is a function of the time spent engaging in work	There is a general agreement that while the time spent engaging in an activity is correlated with those addicted, time in, and of itself is not a core component of addiction. Content and context of the behavior is far more important in determining addictive behavior than time	Some researchers still use working time as a proxy to work addiction (Lior et al., 2018 Sussman, 2018). This should be carefully investigated because studies which use this methodology often produce confusing results (e.g. Snir & Zohar, 2008 cited by Lior et al., 2018). Special care should be taken when referencing these studies
10 Work addiction is an example of overpathologizing everyday behavior and it will never be classed as a mental disorder in the DSM	There is a general agreement that work addiction is a problematic behavior. Most of the commentaries defined it and studied it as a form of behavioral addiction	More high-quality empirical evidence validating work addiction as a diagnosis is needed. The relationship with OCPD as well as co-occurring disorders should also be investigated and clarified

Note. This is a brief summary of the opinions expressed in the commentaries. The purpose is to provide brief outline of the debate. However, the diversity of perspectives and arguments needs to be taken into account. Therefore, “a general agreement” means that the overwhelming majority of commentaries explicitly or implicitly expressed agreement on particular issue. Loscalzo and Giannini (2018b) conceptualized workaholism/studyholism as an obsessive-compulsive disorder and not addiction (which was addressed elsewhere; see Atroszko, 2018). Therefore, this has to be considered when interpreting their arguments. For more information and in order to avoid confusion, please see particular comments in the original papers published.

The caution of expression of the comments only supports the notion that some of the most impactful researchers investigating work addiction are cautious methodologically and conceptually not to overstate the implications of the known facts and compromise “*the credibility of the field of addictive disorders*” (Karddefelt-Winther et al., 2017, p. 1709). Among the most important challenges facing the field and most frequently mentioned in the commentaries to our original paper are: (a) the need for widely accepted definition of work addiction; (b) more transdisciplinary and integrative approach in research including micro-, meso-, and macro-level factors contributing to work addiction; and (c) more high-quality research going beyond cross-sectional self-report studies.

DEFINITION OF WORK ADDICTION: CLINICAL FRAMEWORK INTEGRATED WITH ORGANIZATIONAL RESEARCH

There is a need for a clinically based definition of work addiction and one that simultaneously considers transdisciplinary research, especially the integration of the data from work and organizational psychology research. Given that all the commentaries agreed that work addiction is a problematic behavior leading to clinically relevant negative consequences, it appears to be paramount that a definition of work addiction should be grounded within a clinical framework. It follows from the fact that most of the currently existing conceptualizations of work addiction (explicitly or implicitly) define it as a behavioral addiction (Andreassen & Pallesen, 2016; Griffiths & Karanika-Murray, 2012; Quinones & Griffiths, 2015; Sussman, 2012) and the available data support such an assumption (Griffiths et al., 2018). Furthermore, the definition of work addiction should be congruent with the current developments concerning the criteria for conceptualizing a behavioral addiction (Karddefelt-Winther et al., 2017; Starcevic et al., 2018). In addition, because much of the existing research is being conducted within the organizational and work psychology framework, the definition should take into account developments on work addiction research in these fields, specifically different high work involvement frameworks (Snir & Harpaz, 2012; Vallerand, 2015) and distinction between work addiction and work engagement (Griffiths et al., 2018).

Addiction is characterized by compulsivity (Everitt & Robbins, 2005; Koob & Volkow, 2010). A review by Sussman and Sussman (2011) identified elements common to most of the definitions of addictions. Since temporary satiation is possibly controversial, some researchers may argue that it should be omitted from a strict definition of addiction. If so, the other elements are congruent with most of the suggested and widely recognized definitions of a behavioral addiction to date (Grant, Potenza, Weinstein, & Gorelick, 2010; Griffiths, 1996, 2005; Holden, 2001; Karddefelt-Winther et al., 2017). These elements are: (a) engagement in the behavior to achieve appetitive effects (e.g., pain reduction, affect enhancement, arousal manipulation, and/or fantasy), (b) total preoccupation with the behavior, (c) loss of control, and (d) suffering negative consequences. These elements are also to a large extent

congruent with most of the existing definitions of work addiction, which include the elements of preoccupation with work/compulsion or addiction to work, and negative consequences of excessive work (Andreassen & Pallesen, 2016; Fassel, 1992; Griffiths, 2011; Oates, 1971; Robinson, 2014; Schaufeli, Taris, & Bakker, 2006; Spence & Robbins, 1992; Taris, Schaufeli, & Verhoeven, 2005; for a overview, see Andreassen, 2014; Griffiths & Karanika-Murray, 2012; Sussman, 2012). Therefore, a tentative definition of work addiction is suggested along the following lines (with Part A being a general definition and complementary Part B being a more preliminary suggested specific definition):

Part A

Work addiction is characterized by a compulsion to work and preoccupation with work activities leading to a significant harm and distress of a functionally impairing nature to the individual and/or other significantly relevant relationships (friends and family). The behavior is characterized by the loss of control over the working activity and persists over a significant period of time. This problematic work-related behavior can have varying intensity from mild to severe.

Part B

Loss of control over the working activity involves working more than planned, despite the negative consequence and/or unsuccessful attempts to reduce the activity and/or progressive increase in time spent on working. Withdrawal symptoms (including irritability, negative feelings, sleep problems, etc.) are frequent if the planned/desired amount of work is hindered or appear when attempts at reduction of the amount of work are undertaken. The work activity often serves to reduce negative feelings and/or avoid interpersonal and/or intrapersonal conflicts.

Although the distinction between work addiction and work engagement is currently fairly established (Andreassen, 2014; Andreassen & Pallesen, 2016; Clark, Michel, Zhdanova, Pui, & Baltes, 2016; Griffiths et al., 2018; Griffiths & Karanika-Murray, 2012; Karanika-Murray, Duncan, Pontes, & Griffiths, 2015; Quinones & Griffiths, 2015; Sussman, 2012), there is still need to address the findings related to different levels of work enjoyment and work involvement among those working compulsively (Loscalzo & Giannini, 2018a; Snir & Harpaz, 2012; Spence & Robbins, 1992). It appears that this could be explained to some extent by the stage of addiction or level of addiction, which somewhat parallels previously used classification of alcohol abuse and alcohol dependence (see Malinowska, 2018). In order to address the issue of different levels of problematic behavior, subclasses of mild, moderate, and severe work addiction could be used analogically to the currently used diagnostic criteria of alcohol-use disorder (American Psychiatric Association [APA], 2013). Advantages and disadvantages of this approach should be taken into account (Babor & Caetano, 2008; Hasin, 2012; O'Brien, 2011; Wakefield, 2015).

When it comes to loss of control, which is fundamental to all addictions, special care needs to be taken in order to

distinguish between the need for control executed in relation to performing work itself, which is characteristic of many work addicts, and the loss of control over the degree of involvement in work and significantly reduced ability to control other aspects of their day-to-day lives (see Griffiths, 2013). In some sense, it is a dysfunctional tradeoff between increasing control over work and losing it over every other aspect of life, similar to one observed (for example) in anorexia nervosa. This could be reflected in unsuccessful attempts at reducing the behavior. However, it needs to be taken into account that addiction is strongly linked to denial and most of those who need intervention never recognize this fact or do not try to reduce the behavior (Goldstein et al., 2009).

Moreover, there are clear cases of death due to overwork, and the analysis of circumstances leading to such fatalities shows not only lack of effort to reduce work but also special actions to increase the amount of work. For example, there are cases of Polish medical doctors who die during hospital duty, typically after more than 24 hr of continuous work. In order to be able to work so much, they have to establish their own business and work as an external contractor to circumvent work regulations (Ogólnopolski Związek Zawodowy Lekarzy, 2017). There are likely factors related to the disadvantageous medical policies, working environment, and/or limited number of physicians that contribute to this situation. However, finally, an individual needs to make consecutive decisions leading to an undue high amount of work and eventually to death (despite knowledge of physiological consequences of extreme stress and fatigue). While substance use disorders are well-known and persistent problems among physicians – often developed in response to paramount stress and responsibility (Domino et al., 2005) – there is very little known on how vulnerable individuals may react to demanding and unfavorable working conditions by developing work addiction. What is acknowledged though, by Doctors' Trade Union of Poland (Ogólnopolski Związek Zawodowy Lekarzy, 2017) and the Japanese Ministry of Health, Labour and Welfare, is that physicians die due to long working hours (Hiyama & Yoshihara, 2008; Uehata, 2005). However, there is a distinction between working too hard because the individual feels that is what the job demands and being addicted to work (which will have completely different motivations).

Future studies would be likely to provide more insight into the motivational determinants of overloading oneself with work. More specifically, motives that distinguish healthy engagement and passion from unhealthy compulsion should be investigated (Andreassen, Ursin, & Eriksen, 2007; Burke & Fiskebaum, 2009; Griffiths, 2011; Sussman, 2018; Vallerand, 2015; Van den Broeck et al., 2011), as well as those concerning situational factors that may burden individuals with excessive workload and responsibility, and in which cases the excessive work might have little to do with addiction. One such example concerns the motivations characterizing workers who give in to the excessive demands of work during an economic crisis (Kondo & Oh, 2010). Arguably, in many cases, these motivations are rooted in the basic human physical and safety needs and have nothing to do with addiction but could be just as disruptive and/or destructive in an individual's health status (e.g., effects of stress) and social relationships (e.g., impact on family interactions).

Withdrawal symptoms are generally understudied in behavioral addictions (Kaptsis, King, Delfabbro, & Gradisar, 2016). Most often they are described in terms of irritability and restlessness following cessation of the activity. In the case of work addiction, there is fairly strong indication of the possibility of existence of some kind of physical withdrawal. For example, there is a line of research on the so-called "leisure sickness." It is observed that some people feel ill and develop symptoms particularly during weekends and vacations (Van Heck & Vingerhoets, 2007). Moreover, about 15% of participants in Poland (Atroszko, Pallesen, Griffiths, & Andreassen, 2017) and 12% in Norway (nationally representative sample; Andreassen et al., 2014) indicated that they often or always become stressed if they are prohibited from working. Further studies are necessary to suggest specific criteria concerning withdrawal typical for work addiction. Nevertheless, these characteristic symptoms of withdrawal appear to be present in work addiction and are probably no less severe than those for caffeine withdrawal (APA, 2013). This issue requires more studies utilizing clinical populations to help delineate the psychobiological mechanisms of these responses, including the interplay between nervous, endocrinological, and immune systems. Special attention should also be devoted to controlling the confounding factors such as change of environment during non-working days (see Van Heck & Vingerhoets, 2007).

It is suggested that congruent with the manner in which other addictions are conceptualized, and with understanding of the coping role of addiction/emotion regulation (Atroszko, 2015, 2018; Brevers & Noel, 2015; Griffiths, 2017; Jacobs, 1986; Konkoly Thege, 2017; Kun & Demetrovics, 2010; Marmet, Studer, Rougemont-Bücking, & Gmel, 2018; Shaffer et al., 2004; Sinha, 2008; Sussman, Rozgonjuk, & Van den Eijnden, 2017; Tunney & James, 2017; Van der Linden, 2015), other comorbid or underlying psychological problems should not be viewed as exclusion criteria for work addiction. To date, other co-occurring disorders found in work addiction studies include attention-deficit hyperactivity disorder, obsessive-compulsive disorder, major depressive disorder, and generalized anxiety disorder (Andreassen, Griffiths, Sinha, Hetland, & Pallesen, 2016; Atroszko et al., 2017). Furthermore, taking into account the similarities between some of the symptoms of work addiction and obsessive-compulsive personality disorder (OCPD), the relationship between these constructs needs further clarification (see Atroszko, 2018; Loscalzo & Giannini, 2018a, 2018b). Given that the results of the OCPD studies are often inconsistent and there are few well-established facts regarding this diagnosis (Diedrich & Voderholzer, 2015), perhaps research concerning work addiction could shed more insight on OCPD itself, including its potential reevaluation.

It is argued that the harm produced by work addiction should include, apart from family and coworkers, other individuals who may suffer consequences of work addicts' actions attributable to the work addiction itself. For example, there is the increasing problem of burnout among medical doctors in the US and many other countries (Imo, 2017; Panagioti et al., 2017; Shanafelt et al., 2015; West, Dyrbye, Erwin, & Shanafelt, 2016) as well as affecting medical students and residents (Dyrbye & Shanafelt, 2016).

Burnout increases risk of medical errors (Tawfik et al., 2018), and has been associated with work addiction in previous studies (Griffiths et al., 2018). At present, there is no estimate of how many medical errors are directly attributable to work addiction. Arguably, such harm and distress to the recipients of professional work could affect any other vocation from kindergarten teachers to policymakers.

We hope that our suggested definition of work addiction can facilitate collaborative development of the diagnostic criteria for work addiction and their validation. A proper differentiation between mild, moderate, and severe work addiction based on the number of met criteria could be one of the challenges. Apart from properly operationalized common addiction components (Andreassen, Griffiths, Hetland, & Pallesen, 2012; Griffiths, 2005), the criteria would also need to consider such factors as the enjoyment/satisfaction from work, involvement in work, self-efficacy in work, socioeconomic status, and financial situation (i.e., significant socioeconomic repercussions as a consequence of reducing the number of hours worked), severity of harm, harm to oneself and/or harm to others, and self-awareness of the problem.

THE NEED FOR A TRANSDISCIPLINARY AND INTEGRATIVE APPROACH TO RESEARCH CONCERNING WORK ADDICTION

The published commentaries generally agreed that work addiction is not solely the result of individual personality factors (Myth 5) and they strongly suggested more transdisciplinary and integrative approach in research including micro-, meso-, and macro-level factors contributing to work addiction (Andreassen et al., 2018; Kun, 2018; Lior et al., 2018; Loscalzo & Giannini, 2018a; Malinowska, 2018; Quinones, 2018; Sussman, 2018; Tóth-Király et al., 2018). To date, a substantial proportion of published studies have focused on the micro-level individual characteristics related to work addiction, such as personality traits (rigid perfectionism, neuroticism, conscientiousness, narcissism, self-esteem, etc.; Griffiths et al., 2018). There are broadly investigated models of organizational stressors such as demand-control-support model (Bakker & Demerouti, 2007) or job demands resources model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) that are used to help explain and understand work addiction.

However, although there are some data from organizational and work psychology that contributes to the understanding of meso-level factors concerning work addiction and their interactions with micro-level factors (e.g., working environment, organizational culture, etc.; Andreassen et al., 2017), there are almost no studies on macro-level factors. A few sources of data, for example, on cultural factors related to work addiction (Hu et al., 2014) or on the increase of *karoshi* and *karojisatsu* during economic crisis (Kondo & Oh, 2010) briefly touch upon the problem. Nevertheless, this is the most underdeveloped level of analysis and arguably the most crucial. It is well-established epidemiologically that the prevalence of a disease or disorder in population has relationships with the average level of specific behaviors within the

population (Rose, 2001), such as the number of individuals abusing alcohol is related to the mean consumption of alcohol in the population. Therefore, it can be expected that the number of work addicts can be predicted on the basis of mean time spent on work or the mean level of work engagement in a particular society. From this premise, it follows that it is fundamental to understand factors influencing work culture in a particular population, as well as its interaction with micro- and meso-level factors.

THE NEED FOR HIGH-QUALITY RESEARCH

Finally, most of the commentaries emphasized the need to improve the quality of research, and some identified the still relatively low quality of research as the main obstacle in the development of work addiction field. Although there were 1,460 results on *Google Scholar* in 2017 based on the search terms “work addiction” or “workaholism,” there were only 44 results indexed in the *Web of Science* during the same period. This suggests significant disproportion between how many papers on work addiction are published in general and how many are published in impactful scientific journals. Another facet of the problem is that many studies are published in languages other than English, and these are not always integrating the scientific knowledge and high level of methodology available internationally.

The recommendations from the commentaries include a need for more: (a) longitudinal studies; (b) studies about family members of work-addicted people; (c) studies on cognitive, neurobiological, and genetic correlates to work addiction; (d) studies on interactions between micro-, meso-, and macro-level factors contributing to work addiction; (e) use of registry-based studies; (f) observational studies of behavior/responses of work addicts; (g) experimental studies investigating, for example, withdrawal effects, cognitive bias, and treatment effects among work addicts; (h) studies using 360° employee ratings of work addicts as well as studies incorporating collateral (e.g., spouse) ratings; and (i) studies on estimation of the prevalence of work addiction in different working populations (e.g., medical doctors, lawyers, managers, teachers, researchers, IT professionals, etc.), which could help to identify populations at-risk of work addiction.

THE PLEA FOR INCLUSIVE COLLABORATIVE EFFORT

Work addiction is a complex problem that cannot be understood and dealt without extensive collaboration, goodwill, and joint efforts from experts in a variety of fields and disciplines. There is still strong resistance from some quarters to acknowledge that work addiction can cause significant harm, which is directly expressed (Kardefelt-Winther et al., 2017) and is continuously emphasized by some of the members of the addiction research community (Atroszko, 2019; Starcevic et al., 2018). The unwillingness to recognize work addiction as a major problem probably reflects the fact that in most industrialized societies, work is one of the most

(if not the most) valued activities and basis for strong personal identity. However, it could also be asked “what is the real cost and meaning of this activity?” Work addiction has been consistently associated with higher levels of stress inside and outside of the work environment, as well as with depression and burnout (Griffiths et al., 2018). Chronic stress is a well-recognized risk factor for a multitude of disorders and non-communicable diseases (Cohen, Janicki-Deverts, & Miller, 2007), including depression.

Recently, it was estimated that the cost of depression related to stress at work in the European Union is €617 billion annually (Atroszko, 2018, 2019; European Agency for Safety and Health at Work, 2014). This is more than the gross domestic product of most European countries (International Monetary Fund, 2017), and that simply relates to depression. Depression, anxiety, and non-communicable diseases such as cardiovascular disease or diabetes are among leading causes of the global burden of disease (Vos et al., 2016), and their costs related to work stress are non-trivial (European Agency for Safety and Health at Work, 2014). Studies examining prevalence of work addiction fairly consistently show that around 8%–10% could be affected, although this depends upon both the occupation and the instrument used to assess work addiction in the first place (Griffiths et al., 2018; Sussman, Lisha, & Griffiths, 2011). At present, we do not know what proportion of the enormous costs of chronic stress inside and outside of work environments is directly attributed to work addiction. Nonetheless, it appears that there are sufficient empirical and theoretical premises to take a closer look at the association between work addiction and global burden of disease, and this is a challenge that no single researcher can undertake without extensive collaboration.

CONCLUSIONS

The commentaries agree that the field should go beyond the myths about work addiction. Significant challenges lay ahead as there is an urgent need to develop consensus regarding the definition of work addiction, systematic integration of data, and collaboration among researchers representing different areas of expertise, including specialists from fields such as medicine, psychology, economics, education, sociology, and others. Trajectories for future studies on a problematic work and work addiction have been delineated and hopefully this debate will contribute to the organization of a broader, but more integrated network of work addiction research.

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