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Problematic overstudying: Studyholism or study addiction?

Commentary on: Ten myths about work addiction (Griffiths et al., 2018)

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This commentary addresses Griffiths et al. (2018)'s sixth myth about work addiction. We agree that work addiction could also be spread in the school context, although we propose that problematic overstudying may be more similar to an obsession than to an addiction toward the study. We refer to the DSM-5 diagnostic criteria related to the obsessive–compulsive disorder (OCD) and the substance-use disorder, presenting some theoretical considerations related to the similarities and differences between problematic overstudying and these two diagnoses. Finally, we focus on the obsessive–compulsive personality disorder. We conclude that problematic overstudying might better be conceptualized as an OCD-related disorder.

Keywords: diagnosis, obsession, study addiction, study engagement, studyholism, workaholism

INTRODUCTION

Griffiths, Demetrovics, and Atroszko (2018) discussed 10 myths about work addiction, which still lacks a shared definition by the scientific community (Giannini & Loscalzo, 2016; Loscalzo & Giannini, 2015), but that is not a new field of research (Atroszko & Griffiths, 2017). We recently addressed some of these myths in our theoretical paper about workaholism (Loscalzo & Giannini, 2017a). In brief, we defined workaholism as a clinical condition characterized by both obsessive and addictive symptoms, as well as by either low or high level of work engagement. We defined problematic overworking as workaholism, and not as work addiction, since we wanted to highlight that it is not a pure behavioral addiction.

Given that we have already dealt with many of Griffiths et al. (2018)'s myths, we address the readers to our paper if they are willing to deepen our theory.

Through this commentary, instead, we focus on the myth about study addiction (Myth 6). We agree with Griffiths et al. (2018) that problematic overworking may also occur in schools and more specifically since preadolescence (Loscalzo & Giannini, 2017b). In spite of this, we conceptualized this emerging construct as a condition that is more similar to an obsession than to an addiction (Loscalzo & Giannini, 2017b, 2018a; Loscalzo, Giannini, & Golonka, 2018). For this reason, we coined the construct of studyholism (Loscalzo & Giannini, 2017b), in contrast to study addiction (Atroszko, Andreassen, Griffiths, & Pallesen, 2015), even if they are both related to the same behavior (i.e., study).

In the following section, we propose theoretical considerations that may help to shed light on the internalizing (i.e., obsessive) and/or externalizing (i.e., addiction) nature of problematic overstudying. More specifically, we refer to the fifth edition of *Diagnostic and statistical manual of mental disorders* (DSM-5; American Psychiatric Association, 2013) diagnostic criteria and text related to the obsessive–compulsive disorder (OCD) and to the substance-use disorder (SUD), intending to present some theoretical considerations related to the similarities and differences between overstudying and these two diagnostic categories. Finally, we focus on the obsessive–compulsive personality disorder (OCPD). Indeed, when proposing our tentative studyholism DSM-like criteria (Loscalzo & Giannini, 2018c), we emphasized that before defining problematic overstudying as studyholism, we should evaluate whether the study-related symptoms are better explained by some other existing and recognized disorders, such as OCPD.

AN OVERVIEW OF DSM-5 DIAGNOSTIC CRITERIA

Referring to OCD, its main features are obsessions and compulsions. It is interesting to note that the DSM-5 specifies that some OCD-related disorders are characterized by *preoccupations* and by compulsions in response to these preoccupations. We believe that studyholism could be included in OCD-related disorders based on this. Studyholics have study-related preoccupations that lead them to

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overstudy, which is the study-related compulsion. In line with this, we included two items in the 4-item SI-10 studyholism scale, specifically addressing study-related preoccupations (Loscalzo et al., 2018).

Moreover, looking at the diagnostic criteria related to the definition of compulsions, in point 2, these specify that these behaviors have the goal of preventing or reducing anxiety, distress or some event feared by the person. This definition seems to allow defining studyholism as an OCD-related disorder. The compulsion of the studyholic (namely overstudying) may be enacted for reducing the anxiety associated with persistent thinking/preoccupations related to study, or just for reducing the possibility that a dreaded event happens, such as being rejected by an exam or getting an insufficient or bad grade.

The DSM-5 also presents some dysfunctional beliefs that are often associated with OCD, such as a great sense of responsibility, perfectionism, and intolerance of uncertainty, which could also be applied to problematic overstudying, based on the associations found between study addiction and workaholism and both conscientiousness and perfectionism (Andreassen et al., 2013; Andreassen, Hetland, & Pallesen, 2010; Atroszko et al., 2015; Aziz & Tronzo, 2011; Bovornusvakool, Vodanovich, Ariyabuddhiphongs, & Ngamake, 2012; Stoeber, Davis, & Townley, 2013).

In addition, the DSM-5 emphasizes that avoidance of people, places, and things that could trigger obsessions and compulsions is common in OCD. Even if it is difficult for a student to avoid all school-related situations, we speculate that studyholics with high impairment could drop out of school/university in order to avoid facing study-related obsessions; furthermore, they could also avoid classmates in order to avoid talking about studying.

However, the most important thing to note is related to the specification that both obsessions and compulsions are characteristics of OCD symptoms (although compulsions are an orthogonal factor across other disorders, such as SUD; Cuzen & Stein, 2014), and that obsessions are experienced as unwanted or are not pleasurable. In line with this, the DSM-5 (APA, 2013) wrote that "*compulsions are not done for pleasure, although some individuals experience relief from anxiety or distress*" (p. 238). This is the major point to refer for differential diagnosis with other compulsive-like behaviors, such as behavioral addictions and substance use: in these disorders, the person derives pleasure from the substance/activity, and the possible desire to resist them is only due to many negative consequences associated with the substance. In line with this, we have emphasized that (disengaged) studyholics, representing the clinical type of studyholism, have low study engagement (Loscalzo & Giannini, 2017b). This means that the act of (over)studying is not associated with pleasure; hence, it seems that the obsessive model fits studyholism well.

Finally, OCD has been associated with dysfunctions in the orbitofrontal cortex, anterior cingulated cortex, and striatum (APA, 2013). If these cerebral correlates were to be found in future research on studyholics, this could provide empirical evidence about the appropriateness of including studyholism among the OCD-related disorders, as we suggest.

Regarding cerebral correlates, it is interesting to note that the DSM-5 included Gambling Disorder in the Substance-Related and Addictive Disorders section based on the evidence that gambling behaviors activate the brain reward system, as also happens in the case of drugs. Hence, the involvement of the reward system could be assumed to be the gold standard for defining an excessive behavior (such as overstudying) as an addiction, as Atroszko et al. (2015) suggested. We believe that in the specific case of overstudying, finding such an activation is unlikely. We speculate that there could be activation of the reward system when students get the academic result they were looking for (e.g., passing an exam or getting the master's degree). However, remembering that studyholics might have high levels of perfectionism (as it is supposed based on the workaholism literature), it is also probable that they will never be satisfied about their positive achievements; hence, the activation of the reward system may not happen either in this case. Moreover, referring to the addiction model, it is the substance (or the activity, for behavioral addictions) that directly activates the brain system. Consequently, the addiction model would be confirmed only if the act of studying were to be associated with activation of the reward system (and not with getting a good grade).

In addition, the DSM-5 wrote that an important characteristic of SUD is the change in the brain circuits, which may persists once the individual is detoxified and that it is exhibited at the behavioral level in the relapses and craving associated with the drug-related stimuli exposure. Also in this case, it is difficult to apply this criterion to study, given that it is unlikely to be associated with such permanent cerebral change as not being a drug with physiological correlates.

Finally, the DSM-5 included the pharmacological criteria among SUD features, which correspond to tolerance and withdrawal. The other clusters of features are impaired control over substance use, social impairment, and risky use of the substance. However, since meeting two criteria up to 11 is sufficient for a diagnosis of mild SUD and since the presence of six symptoms allows defining a SUD as severe, the two pharmacological criteria are not necessary in order to make a SUD diagnosis; this is clearly specified in the text of the DSM. In spite of this, these two criteria are the ones that help clearly differentiate between the addiction and obsessive models of overstudying, given that compulsion is not only one of the typical OCD symptoms, but also present in SUD, as the repeated use of the drug corresponds to a compulsion. Moreover, the salience of the drug of choice in the person's life could in some ways be considered as an obsession. The salience criterion is not specified in the DSM-5 SUD criteria, but it is one of the seven core addiction components referred to by Atroszko et al. (2015).

Given the importance of the tolerance and withdrawal criteria for defining an excessive behavior as an addiction, Atroszko et al. (2015) stated that problematic overstudying is characterized by the seven core components of addictions, including these two components (Griffiths, 2005). Thus, we suggest that in order to support the addiction model, it should be highlighted that study addiction is characterized by the activation of the reward system and by the presence of withdrawal and tolerance symptoms.

However, on critically analyzing the instrument proposed to evaluate study addiction, namely the Bergen Study Addiction Scale (Atroszko et al., 2015), some issues arise about the operationalization of the construct in the addiction framework. About tolerance and withdrawal components, the items that were proposed to evaluate them do not seem to address these components adequately. Tolerance is addressed by an item asking how often during the past year the person spent much more time in studying than was initially intended. This item corresponds to one of the DSM SUD criteria; however, since it refers to study (and not to a drug whose overuse is determined by its physiological effects), this item seems to reflect more appropriately the absorption study engagement component rather than tolerance, and hence a positive aspect instead of a negative one (Loscalzo & Giannini, 2018b). Moreover, withdrawal is addressed by an item asking about becoming stressed if denied from studying. However, "being stressed" is much too general; this item could also be read in the context of the obsessive model: the compulsion (or ritual) is interrupted and hence the student becomes stressed. These operationalization problems are in line with the recent critical theoretical papers about behavioral addictions (Billieux, Schimmenti, Khazaal, Maurage, & Heernen, 2015; Ko & Yen, 2015).

Finally, we would like to stress that another diagnosis should be considered while analyzing overstudying, namely OCPD, given that one of the eight criteria clearly refers to overworking, and hence it could be applied to overstudying as well. Criterion 3 states that the person is excessively devoted to work and productivity and he/she avoids leisure activities and friendships. However, in order to make a diagnosis of OCPD, at least three other criteria should be met. Hence, if a student is characterized by a pervasive and inflexible personality style constituted by overstudying and also by other OCPD symptoms (e.g., overconscientiousness, rigidity and stubbornness, and inability to throw away worthless or worn-out objects) and all of these symptoms are present outside the school context and spread across a broad range of situations, a diagnosis of OCPD should be made, since studyholism is a consequence of it.

With regard to the differences between OCPD and studyholism, it should be noted that personality disorders are often ego-syntonic, whereas (disengaged) studyholism is ego-dystonic. In addition, the definition of personality disorders stresses that the behaviors deviate markedly from the individual's cultural expectations. Overstudying is generally considered instead as a valuable behavior in society. Finally, the OCPD is not characterized by the study-related obsessions and preoccupations that are features of studyholism.

Hence, by remembering the differences and similarities between studyholism and OCPD, we suggest considering this personality disorder before proposing a clinical diagnosis of studyholism.

CONCLUSIONS

Based on the comparison between the DSM-5 diagnostic criteria for OCD and SUD, we suggest that problematic overstudying could better be conceptualized as an OCD-related disorder. However, no conclusions can be made yet because of the lack of research on the specific features of problematic overstudying. Future research about the cerebral correlates could help define the nature of the disorder better. Moreover, it would be useful to analyze psychological aspects specifically related to SUD and OCD.

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