ORIGINAL ARTICLE

Behavioral Addictions Questionnaire (BAQ): Validation of a New Tool for the Screening of Multiple Addictive Behaviors in the Italian Population

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Abstract

This study deals with the uncertainty in defining behavioral addictions (BAs). BAs are characterized by specific compulsive behaviors, regardless of potential negative consequences. However, to differentiate a behavior from a leisure activity to an addictive one is still an object of debate in the literature. Accordingly, this study aimed to assess the psychometric properties of the Behavioral Addictions Questionnaire (BAQ) as a possible screening tool for multiple BAs (i.e., shopping, food addiction, gambling, sex, work, exercise, Internet, videogames, and smartphone). BAQ aims to give a dimensional and quantitative assessment of addictive behaviors in a continuum, including both the adaptive and maladaptive features of the behaviors. Five hundred and seventy-six healthy adults (age range: 18–88) participated in the study, completing a survey including the BAQ questionnaire. Considering both exploratory and confirmatory factor analyses, statistical examination suggested good psychometric properties, with adequate validity in all its subscales (i.e., the goodness of fit). Moreover, also higher reliability was confirmed for each dimension detected (i.e., all alpha over 0.65). The BAQ represents a comprehensive screening instrument that benefits from appropriate validity and reliability for assessing BAs. Therefore, it can be used in clinical fields and research. Moreover, the feature of BAs on a continuum, and the severity index adopted by the study, can help from a preventive perspective. However, further validation of the BAQ is needed in other countries and contexts.

Keywords Addiction; Addictive behaviors; Behavioral Addictions Questionnaire · Aging ·
Elderly people

Behavioral addictions (BAs)—also referred to as impulse control disorders—are characterized by performing repetitive behaviors, regardless of any potential negative consequences (e.g., physical, emotional, financial) (Petry & O'Brien, 2013; APA, 2013; Caretti et al., 2018; Pinna et al., 2015). Despite some behavioral patterns have been defined over the

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years as maladaptive (e.g., gambling, Internet and gaming addiction, compulsive shopping disorder, food addiction), the concept of behavioral addictions remains controversial (Kuss & Lopez-Fernandez, 2016; Abendroth et al., 2020).

Diagnosis and evaluations of possible behavioral addictions have traditionally focused on similarities with both impulse control disorders and substance addictions, such as (i) repetitive, persistent, and dysfunctional behaviors; (ii) loss of control and compulsion in acting the dysfunctional behavior; (iii) initial well-being with subsequent craving; (iv) development of tolerance, abstinence, impairment of the general functioning; and (v) impulse to perform harmful if the desired behavior is not implemented (APA, 2013; Bean et al., 2017; Chen et al., 2017; Grant et al., 2011; Griffiths et al., 2018; Hausenblas & Smoliga, 2017; Holden, 2010; Maraz et al., 2016; Marazziti et al., 2015; Poli, 2017; Schulte et al., 2018; Whiting et al., 2018). Although behavioral and substance addictions are considered two different dysfunctional patterns, neurobiological data confirmed many similarities. In fact, they share the same neural networks (Brewer & Potenza, 2008) and are characterized by alteration in similar brain areas (i.e., dorsolateral, orbital, and ventral medial prefrontal cortex; striatum; mesocorticolimbic system; see Brand et al., 2014; Dong et al., 2011; Gearhardt et al., 2011; Ko et al., 2009; Long et al., 2018; Yau & Potenza, 2015; Power et al., 2012).

However, a lack of consensus on the connotation of a possible behavioral addiction concerns the definition of maladaptive features of a potentially pleasured behavior (Billieux et al., 2015; Conway et al., 2010). This limit makes the definition of BAs complex. Accordingly, it is important to expand upon the traditional perspective on BAs to incorporate these additional features, which can discriminate from an adaptive to a maladaptive behavioral pattern (Dash et al., 2019; Essau, 2020). To this aim outlining a diagnostic framework for the different BAs reported in the literature appears relevant. Previous attempts generated tools to assess single BAs (e.g., Yale Food Addiction Scale; Gearhardt et al., 2009; Bergen Shopping Addiction Scale, Andreassen et al., 2015; Sex Addiction Screening Test; Carnes & O'Hara, 1991; Exercise Dependence Scale; Hausenblas & Symons Downs, 2002; Internet Addiction Scale; Nichols & Nicki, 2004; Smartphone addiction scale; Kwon et al., 2013). However, due to the lack of statistical validation, the functional adoption of these instruments is limited.

This study aimed to assess the psychometric properties of a new questionnaire—the Behavioral Addictions Questionnaire (BAQ)—to assess multiple risks of BAs (i.e., shopping, food addiction, gambling, sex, work, exercise, Internet, videogames, and smartphone). Accordingly, we expected a solid factorial structure of the tool that, due to its characteristics (i.e., 9 scales), can allow assessing each BA separately but also represents an agile instrument for the overall assessment of the BAs framework. In line with the different theoretical backgrounds characterizing behavioral and substance addictions, the new instrument does not include a substance addictions assessment. This choice was driven also because (i) we aimed to build a fast tool focused on the screening of behavioral addictions; (ii) substance addictions involve, besides specific behavioral aspects, pathophysiological effects linked to the type of substance assumed, which are more difficult to assess through a questionnaire.

Another aim of the study was to give a dimensional and quantitative assessment of addictive behaviors and their severity level, supporting a continuum vision of the behaviors from leisure activity, pre-addiction state, and BA condition. According to this aim, we want to suggest different thresholds for each single Bam hypothesizing that each behavior may at different degree represents an addiction.

Method

Participants

An online survey allowed to collect data from 727 Italian respondents. All the data from the survey was checked for eligibility criteria. Specifically, only participants who completed the overall survey were included (637/727). Inclusion criteria were (i) age over 18 years, (ii) no history of neurological conditions, and (iii) no psychopathological conditions (depression, anxiety). Accordingly, 61 participants were excluded not fitting inclusion/exclusion criteria. A final sample of 576 participants was included in the study.

Participants' characteristics are reported in Table 1.

Measures

Demographic Data

A brief demographic survey collected information concerning age, gender, and years of education.

Behavioral Addiction Questionnaire (BAQ)

The BAQ is a self-report measure designed to assess multiple behavioral addictions in the Italian population. A preliminary set of items (n: 100), inspired by the Shorter Promise Questionnaire (Couyoumdjian et al., 2006), was discussed in a focus group of ten clinical psychologists trying to identify central and more specific aspects of addictive behaviors. The BAQ was structured considering nine different Bas that could be assessed together and separately: Shopping, food addiction, gambling, sex, work, exercise, Internet, videogames, and smartphones. An initial set of 10 items, assessed through a 6-point Likert scale, from 0 (absolutely false) to 5 (absolutely true), for each scale was considered. After the focus group, 46 items were removed (rate concordance: 0.92). Finally, the remaining 54 items were tested by factor analyses. The range score provided for each scale was included from 0 to 30. A higher score indicated higher problematic behavior.

Barratt Impulsiveness Scale (BIS-11)

The Barratt Impulsiveness Scale-11 (BIS-11, Fossati et al., 2001) is a 30-item self-report questionnaire designed to assess general impulsiveness, considering the multifactorial nature of the construct. The BIS-11 includes three scales: *attentional impulsiveness* (attention and cognitive instability), *motor impulsiveness* (motor and perseverance), and *non-planning impulsiveness* (self-control and cognitive complexity). The items require a response through a 4-point Likert scale, from 1 (rarely/never) to 4 (almost always/always). Higher scores indicated higher impulsivity traits. The reliability of the overall test in the considered sample is the following: Cronbach's $\alpha = 0.70$; CI 95% [0.66–0.74].

Table 1 Main characteristics of the respondents (mean and standard deviation)

Females, *N* (%)	Age	Years of education	BDI	BIS-11 Attentional impulsiveness	BIS-11 Motor impulsiveness	BIS-11 Non-planning impulsiveness
320 (55.6)	47.02 (19.22)	13.77 (4.75)	7.72 (5.89)	15.06 (3.21)	19.08 (3.77)	23.78 (4.91)

Beck Depression Inventory

The Beck Depression Inventory (BDI) (Beck et al., 1996) is a 21-item self-report questionnaire designed to assess depression. Responses are given on four increasing levels of severity considering 21 different dimensions associated with depression. The severity of depression is evaluated on a scale ranging from 0 to 63. Scores lower than 10 indicated no depression, scores between 10 and 19 are associated with mild depression, scores ranging from 20 and 29 denote mean levels of depression, while scores higher than 30 signify severe depression. The reliability of the test in the considered sample is Cronbach's $\alpha = 0.91$; CI 95% [0.89–0.92].

Procedure

An online survey was disseminated via social media (such as Facebook, Twitter, Instagram, and Telegram) from January 2019 to January 2020. At the beginning of the survey, informed consent was signed. The survey included a short demographic questionnaire to control the eligibility criteria, standardized questionnaires aimed to assess psychological outcomes of depression and impulsivity (Beck Depression Inventory and Barratt Impulsiveness Scale), and the Behavioral Addiction Questionnaire. The time to complete the survey was approximately 15 min. No personal information, which could allow the identification of participants, was collected to guarantee anonymity. This study was conducted according to the Declaration of Helsinki and the Ethics Committee of the Department of Dynamic and Clinical Psychology and Health Studies ("Sapienza" the University of Rome, protocol number: Prot. n. 0,001,169—21/08/2019) approved it.

Data Analysis

Descriptive statistics considering the overall sample and age group were calculated, including means and standard deviations of numerical variables. Then, to explore the monofactorial structure of each subscale, exploratory factor analysis (EFA) was applied, considering Bartlett's Test of Sphericity and the Kaiser–Meyer–Olkin (KMO) Measure of Sampling Adequacy to assess the single-factor model for each behavioral addiction scale of the BAQ. Maximum likelihood (ML) was selected as the factor extraction method; eigenvalues greater than 1 and the Kaiser criterion were checked for agreement. Moreover, confirmatory factor analysis (CFA) was conducted. The maximum likelihood (ML) estimation was also employed in CFA. The goodness-of-fit was assessed using chi-square, comparative fit index (CFI), Tucker Lewis index (TLI), goodness of fit index (GFI), the incremental fit index (IFI), root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), and normed fit index (NFI). The cut-off criteria for the fit indices were based on Kline's suggestions (Kline, 2012). Adequate model fit was determined by cut-offs of 0.90 for the CFI, IFI, and TLI, 0.95 for GFI, 0.08 for the RMSEA, and 0.08 for the SRMR. The reliability of the scales was calculated using Cronbach's alpha coefficient. The concurrent validity of the scales was explored by a series of two-tailed Pearson linear correlations. In particular, to analyze convergent validity, BDI and BIS-11 were included in correlational analyses to evaluate

the relationship between BAs, impulsivity, and depression. According to Forte et al. (2021), to determine cut-off scores for each scale, two different thresholds were considered for moderate (mean plus 1 standard deviation) and problematic (mean plus 2 standard deviations) behavior for each scale. Moreover, an index of severity of addiction behavior was calculated, considering the ratio between the number of scales in which scores exceed the critical threshold of problematic behavior and the total number of scales multiplied by percent.

IBM SPSS Statistics (version 24.0) (IBM Corp, 2015) and the open-source software R were used to perform statistical analyses in the current study.

Results

Overall Sample

Cronbach's alpha coefficients for all the scales suggested good reliability (see Table 2). The EFAs indices of KMO and Barlett confirmed the goodness of the factorial structure with one principal factor for each scale (see Table 2). The CFAs (see Table 3) generally showed an acceptable fit of the behavioral addiction scales. SRMR (threshold < 0.08) reported a good fit value. Similarly, CFI, TLI, and NFI, showing a value near or beyond the threshold of 0.90, indicated that the texted model is acceptable for these indices.

Table 2 Exploratory factor analysis indices

Factor	Scale	Number of items	Alpha [CI 95%]	KMO/Bartle tt(p)	Proportion variance
1	Sex	6	0.76 [0.73–0.79]	KMO = 0.83 Bartlett < 0.001	0.36
1	Exercise	6	0.75 [0.71–0.78]	KMO = 0.82 Bartlett < 0.001	0.34
1	Smartphone	6	0.77 [0.75–0.80]	KMO = 0.83 Bartlett < 0.001	0.38
1	Internet	6	0.78 [0.75–0.81]	KMO = 0.83 Bartlett < 0.001	0.41
1	Shopping	6	0.78 [0.75–0.81]	KMO = 0.84 Bartlett < 0.001	0.41
1	Food addiction	6	0.72 [0.68–0.75]	KMO = 0.79 Bartlett < 0.001	0.31
1	Work	6	0.63 [0.59–0.68]	KMO = 0.75 Bartlett < 0.001	0.23
1	Videogames	6	0.76 [0.73–0.79]	KMO = 0.82 Bartlett < 0.001	0.36
1	Gambling	6	0.70 [0.66–0.73]	KMO = 0.80 Bartlett < 0.001	0.36

Table 3 Confirmatory factor analysis indices

Factors	Scales	Number of items	CFI	TLI	NFI	GFI	IFI	SRMR	RMSEA
1	Sex	6	0.98	0.97	0.97	0.99	0.98	0.03	0.05
1	Exercise	6	0.97	0.94	0.95	0.98	0.97	0.03	0.06
1	Smartphone	6	0.99	0.98	0.98	0.99	0.99	0.03	0.04
1	Internet	6	0.95	0.92	0.94	0.97	0.95	0.04	0.09
1	Shopping	6	0.98	0.96	0.97	0.98	0.98	0.03	0.06
1	Food addiction	6	0.95	0.92	0.94	0.98	0.95	0.04	0.06
1	Work	6	0.96	0.93	0.93	0.99	0.96	0.03	0.05
1	Videogames	6	0.95	0.92	0.94	0.97	0.95	0.04	0.08
1	Gambling	6	0.97	0.96	0.96	0.98	0.97	0.03	0.06

Correlation Between the BAQ scales

	Sex	Exercise	Smartphone	Internet	Shopping	Food addiction	Work	Videogames
Exercise	0.40							
Smartphone	0.35	0.36						
Internet	0.30	0.40	0.73					
Shopping	0.03	0.33	0.41	0.45				
Food Addiction	0.32	0.36	0.54	0.52	0.46			
Work	0.30	0.43	0.43	0.45	0.31	0.47		
Videogames	0.46	0.36	0.51	0.53	0.34	0.32	0.35	
Gambling	0.52	0.39	0.34	0.27	0.41	0.26	0.23	0.53

All the scales showed significant linear Pearson's r correlation with a significant level of $p < 0.0001$.

Convergent Validity

The BAQ scales showed significant correlations with both the measures adopted to assess concurrent validity (i.e., BIS-11 and BDI) (see Table 4).

Distribution of Score and Cut-off

Means and standard deviations were computed for the different scales (sex, exercise, smartphone, Internet, shopping, food addiction, work, videogames, gambling). Table 5 shows the cut-off scores for moderate and problematic behavior to consider as possible indices of BA.

Considering these cut-offs, in the overall sample, the prevalence of individuals with a problematic pattern of behavior ascribed to a possible BA was respectively: 6.1% sex, 6.4%

Table 4 Correlations among the BAQ, the BIS-11, the BDI scores, and age

	Age	BDI	Attentional impulsiveness	Motor impulsiveness	Non-planning impulsiveness
Sex	0.10*	0.10*	0.21**	0.37**	0.07
Exercise	− 0.15**	0.22	0.23**	0.19**	− 0.07
Smartphone	− 0.26**	0.39**	0.32**	0.18**	− 0.006
Internet	− 0.44**	0.34**	0.33**	0.19**	− 0.06
Shopping	− 0.15**	0.27**	0.27**	0.27**	0.05
Food addiction	− 0.19**	0.43**	0.38**	0.20**	− 0.02
Work	− 0.25**	0.33**	0.33**	0.09	− 0.18**
Videogames	− 0.19*	0.24**	0.28**	0.22**	0.06
Gambling	0.10*	0.10*	0.24**	0.31**	0.09

* < 0.05; ** < 0.001

Table 5 Mean and SD of BAQ and moderate and problematic cut-off score

	Total sample ($N = 576$)	Moderate	Problematic
Sex	1.85 (3.93)	5.68	9.51
Exercise	4.06 (5.12)	9.18	14.31
Smartphone	3.91 (4.98)	8.89	13.86
Internet	4.92 (5.55)	10.47	16.03
Shopping	4.86 (5.71)	10.57	16.28
Food addiction	5.04 (5.39)	10.43	15.83
Work	5.92 (4.94)	10.86	15.81
Videogames	2.41 (4.24)	6.66	10.90
Gambling	1.88 (3.65)	5.52	9.17

exercise, 7.1% smartphone, 4.7% Internet, 5.2% shopping, 5.0% food addiction, 4.2% work, 5.2% videogames, 4.9% gambling.

Finally, the global severity index was calculated, and 1.91% (11/576) of the sample reported a value over 50, while 75% (433/576) reported an index of zero, indicating that any problematic behavior emerged.

Discussion

This study aimed to assess the psychometric properties of the Behavioral Addictions Questionnaire (BAQ) as a possible screening tool for multiple BAs (i.e., shopping, food addiction, gambling, sex, work, exercise, Internet, videogames, and smartphone). Moreover, it proposed a dimensional and quantitative assessment of addictive behaviors and their severity level.

Previous literature reported some limits of existing assessment tools to cover the broad spectrum of BAs (e.g., Caretti et al., 2018). According to our results, BAQ may identify at-risk populations in developing addictive behaviors and may be adopted as a screening tool for multiple BAs. BAQ showed appropriate psychometric indices, reporting confident ability in assessing the risk of addiction considering the behavioral patterns of the included scales (i.e., sex, physical exercise, shopping, smartphone use, work, videogames,

gambling, and food addiction). Also, the results of concurrent validity further support the potentiality of BAQ. BAQ positively correlated with impulsivity and depression, confirming previous findings on the similarities between loss of control impulses and BAs regarding the association with other psychopathological conditions (e.g., Rømer Thomsen et al., 2018; Karim & Chaudhri, 2012; Wang et al., 2019; Asaoka et al., 2020). Accordingly, comorbidity between addiction and mood disorders, i.e., depression, was previously reported (e.g., Le Xu et al., 2020; Karatoprak & Donmez, 2020). On one side, BAs could represent a maladaptive way of coping with the primary states of depression (Le Xu et al., 2020); on the other side, BAs potentially increase the risk of depression in changing life habits (e.g., loneliness, low self-esteem, decrease in sleep time, change in physical activity, loss of money) (Karatoprak & Donmez, 2020). In line with the positive association between BAQ and BIS-11 score, impulsivity and compulsivity traits seem to facilitate the occurrence of BAs, which can be reinforced by both positive (the pleasure linked to the behaviors) and negative stimuli (the painful states involved in withdrawal symptoms) (Caretti et al., 2018). Subcomponents of impulsivity, including low inhibitory control, play a role in gambling, food addiction, and other potentially addictive behaviors (Billieux et al., 2012; Canale et al., 2016; Fischer et al., 2008; Grall-Bronnec et al., 2012; Michalczuk et al., 2011; Savvidou et al., 2017; Kelly et al., 2014; Mikheeva & Tragesser, 2016; Murphy et al., 2014; VanderBroek-Stice et al., 2017; Thomsen et al., 2013).

Another concerning BAs is the prevalence in the general population. In a perspective that considers such behaviors as a continuum (i.e., from adaptive to pathological) and to counteract an inflationary use of the behavioral addiction concept, we adopted two cut-off indices to distinguish pathological behavior from non-pathological behavior (Forte et al., 2021). Our results showed that about 24.8 percent of the overall sample reported critical values in at least a single BA. These results agree with previous studies on BAs (APA, 2013; Forte et al., 2021; Kuss, 2013; Shen et al., 2021; Schneider et al., 2004). Considering different BAs subscales, heterogeneous results emerged. Concerning sex addictions, prevalence data indicated that 6.1% reported critical scores beyond the threshold. A preceding review by Karila and colleagues (2014) reported prevalence data ranging from 3 to 16%, highlighting high heterogeneity between epidemiological data in different populations (Karila et al., 2014). The authors explained this limit due to the absence of standardized diagnostic criteria, which generate controversy in including sexual addiction as a compulsive or impulsive disorder (Fuss et al., 2019). However, in line with our results, they underlined how most studies on the adult population estimate a prevalence of sexual addiction between 3 and 6 percent (e.g., Freimuth et al., 2008; Kuzma & Black, 2008). Regarding videogames and gambling addiction, we highlighted percentages (5.2% and 4.9%, respectively) that agree with previous studies (Whiting et al., 2018; Wittek et al., 2016). Similar results were found for food addiction. Prevalence (5%) appears in line with other studies that reported a percentage ranging between 4.3 (Nunes-Neto et al., 2018) and 7.9% (Hauck et al., 2017). In this case, it is important to underline that food addiction is different from binge eating disorder (DSM 5, 2013) which shows a prevalence ranging from 1 to 5% in the target population (i.e., general population, population with obesity) (Kessler et al., 2013; Marzilli et al., 2018). Although BAQ cannot distinguish between the two types of disorders, high scores on the food addiction scale could suggest the presence of a binge eating disorder. Also, the prevalence of Internet and smartphone addictions is consistent with studies reporting a percentage ranging from 0.8 and 12% (Poli, 2017), even if epidemiological data are heterogeneous. This class of behaviors is strongly related to the current use of the smartphone as the prominent device for Internet access. Furthermore, they allow people to install various applications and utilities to perform numerous activities

according to personal needs and interests (Li & Lin, 2019). Regarding shopping addiction, a meta-analysis (Maraz et al., 2016) reported a pooled prevalence in the adult population of 4.9%, in line with our findings; however, the authors highlighted a variation in prevalence between samples due to the different instruments as well as the inclusion of new strategies of buying (e.g., online shopping).

Conversely, some assessed AB presented different percentages from previous studies. We found a remarkably high percentage of exercise addiction, substantially higher than preceding studies (0.4%) (Hausenblas & Smoliga, 2017) but in line with Lichtenstein and Jansen (2016), who reported a prevalence near 6.4%. According to these different data, further studies are needed to understand these inconsistent results better.

Another result that appears difficult to compare with previous findings is work addiction prevalence. Previous studies reported work addiction (or workaholism) prevalence from 8 (e.g., Andressen et al., 2014) to 20% (e.g., Sussman, 2017; Orosz et al., 2016; Ravoux et al., 2018). Our results highlighted that about 4.2% of the sample showed problematic work behavior. This result could be due to the sample's age range, which includes young people generally involved in studies and the elderly retired from work. These aspects could have generated a lower prevalence rate compared to preceding research.

Although there are interesting insights of this study, some limitations should be highlighted. The shortness of the questionnaire allows a rapid administration but reduces the capability of the instrument to analyze other aspects involved in BAs which should be further deepen (e.g., coping and emotional regulation, personality traits; interpersonal relationships, and the social impact of the maladaptive behaviors), furnishing only quantitative but not qualitative information on the screened BAs. Another limit is ascribed to the validation of the questionnaire in the Italian-speaking population. Further cross-cultural studies should test its psychometric properties in different cultures and languages. Despite the attempt to define the range of BAs more exhaustively, some potentially addictive behaviors were disregarded in the questionnaire (e.g., binge-watching, social network addiction; Atroszko et al., 2018; Forte et al., 2021) and should be included in further studies. Also, the adoption of standard deviations to define the cut-off scores of moderate and problematic behaviors should be considered with caution because it is affected by the characteristics of the sample and is little generalizable. Further studies should compare the results of the BAQ with clinical assessment aimed to deepen and cover the limits associated with the diagnosis of BAs.

Although defining the diagnosis of BAs requires further evaluation with a good clinical interview, the BAQ represents a useful tool for screening BAs and could allow us to define which aspects to focus on. In addition, the definition of problematic rather than pathological behavior reduces the risk of pathologizing behaviors that may not fall into real addictions (Forte et al., 2021). Despite evidence of the limitations and the need of further studies to evaluate associated aspects of BAs, this research could be a starting point to stimulate research in this field and propose more comprehensive instruments for assessing BAs, also considering pathological populations. A comprehensive evaluation of BAs is important to avoid the risk of over pathologizing behaviors which can be included in the field of leisure activity. To counteract this risk, it can be relevant defining different cut-offs able to catch different degrees of severity of the behavior. This approach allows to identify a continuum of each analyzed behavior from adaptive to maladaptive and underlines the importance of focusing the attention on some critical points (cut-offs) of this continuum. The main consequence of this approach is identifying a sort of pre-addiction behavior on which clinicians should focus their attention as a possible prodrome of BA. In conclusion, our findings suggest that the BAQ is a comprehensive screening instrument for assessing BAs with good psychometric properties.

Therefore, it can be used in both research and clinical practice to assess addictive behaviors, considering both general and single BA scales.

Declarations

Conflict of Interest The authors declare no competing interests.

Ethical Approval Ethics Committee of the Department of Dynamic and Clinical Psychology and Health Studies ("Sapienza" the University of Rome, protocol number: Prot. n. 0,001,169—21/08/2019) approved the research.

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