Psychometric Evaluation of the Impulsive-Compulsive Behaviours Checklist (ICB) in a Spanish Prison Population

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Posted Date: 17 July 2025

doi: 10.20944/preprints202507.1419.v1

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 doi:10.20944/preprints202507.1419.v1

Article

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Francisca López-Torrecillas [1], Isabel Ramírez-Uclés [2], F. Pablo Holgado-Tello [3] and Lucas Muñoz-López [1]

[1] Francisca López-Torrecillas, Center Research Mind Brain and Behavior (CIMCYC), University of Granada, Spain

[2] Department of Personality, Assessment and Psychological Treatments. Universidad Nacional de Educación a Distancia (UNED), Spain

[3] Department of Behavioral Sciences Methodology. Universidad Nacional de Educación Distancia (UNED), Spain

* Correspondence: iramirez@psi.uned.es

Abstract

Impulsivity and compulsivity are key transdiagnostic constructs underlying addictive and criminal behaviors, often conflated as facets of impaired self-control. While impulsivity has been extensively assessed through experimental paradigms and self-report instruments, compulsivity is typically evaluated using similar tools, with few specific measures designed for its distinct characteristics. This study aimed to validate the Spanish version of the Impulsive-Compulsive Behaviours Checklist (ICB) in a prison population. The ICB was translated and administered to 700 incarcerated males (M_age = 37.33 years) who completed the instrument voluntarily. Confirmatory factor analysis supported a two-factor structure comprising 34 items. Internal consistency was satisfactory, with McDonald's omega and Cronbach's alpha coefficients ranging from 0.79 to 0.80 across factors. Convergent validity was established through correlations with related measures (UPPS-P, OBQ-44, EuropASI, SCL-90-R). Findings support the psychometric soundness of the Spanish ICB, providing a valid and reliable tool to assess impulsive and compulsive traits in forensic settings.

Keywords: impulsivity; compulsivity; psychometrics; prison population; scale validation

1. Introduction

Impulsivity and compulsivity are transdiagnostic constructs implicated in a wide range of psychiatric and behavioral disorders. While traditionally examined separately, growing evidence suggests that these traits frequently co-occur and interact, particularly in clinical and forensic populations (López-Torrecillas, 2025; Robbins et al., 2024). Impulsivity is typically defined as a predisposition toward rapid, unplanned reactions to internal or external stimuli without regard for potential negative outcomes. Compulsivity, by contrast, involves repetitive, maladaptive behaviors driven by rigid rules or to reduce distress, often without resulting in reward or satisfaction (APA, 2013).

Neurocognitive models associate impulsivity with hypoactivity in prefrontal regions, while compulsivity may involve hyperconnectivity in cortico-striatal circuits (Cong et al., 2024; Overmeyer & Endrass, 2025). These dysfunctions are especially relevant in disorders characterized by impaired self-control, such as substance use disorder, antisocial personality disorder, and obsessive-compulsive disorder. Incarcerated individuals show disproportionately high rates of such behaviors, often associated with substance use, aggression, and early exposure to trauma (Brassard & Joyal, 2022; Clarke et al., 2024).

 doi:10.20944/preprints202507.1419.v1

Despite their prevalence, impulsive and compulsive traits remain difficult to assess jointly. Most instruments assess these constructs separately and lack ecological validity in forensic settings. Moreover, widely used tools such as the Impulsive Behavior Scale (UPPS-P; Steketee et al., 2003; Verdejo et al., 2010) and the Obsessive Beliefs Questionnaire-44 (OBQ-44; Obsessive Compulsive Cognitions Working Group, 2005) focus primarily on self-reported cognitive or emotional traits, and may not adequately capture the full range of real-world impulsive and compulsive behaviors typically observed in forensic or clinical settings (Clarke et al., 2024; van Timmeren et al., 2018).

The Impulsive-Compulsive Behaviours Checklist (ICB; Guo et al., 2017) was developed to address this gap through a transdiagnostic and dimensional framework. This 34-item self-report scale evaluates problematic behaviors based on their impulsive or compulsive nature, providing a more comprehensive view of behavioral dysregulation. To date, no validated version of the ICB exists for Spanish-speaking prison populations. Given the high clinical relevance of impulsivity and compulsivity in this context, the present study aimed to adapt and validate the Spanish version of the ICB. Specifically, we evaluated its psychometric properties, factorial structure, and convergent validity with established clinical measures in a large sample of incarcerated men.

2. Methodology

2.1. Participants

A total of 900 individuals were approached from the male prison population at the Granada Penitentiary Centre (Spain), using a stratified probabilistic sampling method. Of these, 700 participants voluntarily consented and completed the assessment protocol. The mean age of the final sample was 37.33 years (SD = 9.09). Inclusion criteria were: age between 18 and 55 years, and absence of major physical or psychiatric illness (e.g., schizophrenia or major depressive disorder), as well as no current psychopharmacological treatment. Fifty individuals declined to participate, and 150 were excluded due to ineligibility.

Eligible participants were individually interviewed to confirm inclusion criteria. Each underwent a one-on-one evaluation session in which all study measures were administered. The total sample was divided into two independent subsamples for exploratory factor analysis (EFA; n = 413) and confirmatory factor analysis (CFA; n = 278). Sociodemographic and offense-related characteristics are summarized in Table 1.

Table 1. Baseline demographic and crime behaviour characteristics of the participants (N= 700) and refused (N=50).

Variables	Scores
Education (N=700)	
Without Primary	115
Primary	
325	
Secondary	237
Degree	
23	
Education (N=50)	
Without Primary	12
Primary	31
Secondary	7
Degree	0

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Marital status (N=700)	
Single	332
Married	135
Divorced	99
Widower	6
Lived with their partner	128
Marital status (N=50)	
Single	25
Married	9
Divorced	5
Widower	1
Lived with their partner	10
Nationality (N=700)	
Spain	661
Other European	7
South America	17
Africa	15
Nationality (N=50)	
Spain	46
Other European	4
South America	0
Africa	0
Offenses (N=700)	
Against life and integrity	67
Against Freedom	52
Against Property/ Treasury	343
Against Public Health	112
Gender Violence	116
Offenses (N=50)	
Against life and integrity	5
Against Freedom	3
Against Property/ Treasury	28
Against Public Health	3
Gender Violence	11
Months of the prison sentence mean (SD)	81.51 (79.77)
Months of the prison sentence (range)	(3-680)

 doi:10.20944/preprints202507.1419.v1

2.2. Instruments

2.2.1. Demographic, Crime, and Institutional Behaviour Interview

A structured interview was developed for this study to collect sociodemographic data, offense history, and prison sentence details, in accordance with Spanish prison regulations (Royal Decree 1201/1981).

2.2.2. Impulsive-Compulsive Behaviours Checklist (ICB)

The ICB is a 34-item self-report measure designed to assess impulsive and compulsive behaviours (Guo et al., 2017). Participants indicate the frequency of each behaviour over the past 12 months using a 4-point Likert scale (1 = "never"; 4 = "always"), and whether the behaviour causes distress. It includes behaviours such as smoking, washing, hoarding, aggression, compulsive checking, self-injury, and social media overuse. The original version reported high internal consistency (α = .89 for Impulsive-Compulsions; α = .84 for Compulsive-Impulsions) and acceptable inter-item correlations (range = .00–.60).

2.2.3. Impulsive Behavior Scale (UPPS-P)

This 59-item scale evaluates five dimensions of impulsivity: Negative Urgency, Lack of Premeditation, Lack of Perseverance, Sensation Seeking, and Positive Urgency (Verdejo-García et al., 2010). Responses range from 1 (“strongly agree”) to 4 (“strongly disagree”). The Spanish version has demonstrated adequate internal consistency (α range = .59–.82) and factorial validity explaining 64.3% of total variance.

2.2.4. Obsessive Beliefs Questionnaire-44 (OBQ-44)

The OBQ-44 assesses dysfunctional beliefs associated with obsessive-compulsive disorder across three domains: Responsibility/Threat Estimation, Perfectionism/Certainty, and Importance/Control of Thoughts (Obsessive Compulsive Cognitions Working Group, 2005). Items are rated on a 7-point Likert scale (1 = “disagree very much”; 7 = “agree very much”). The Spanish adaptation (Nogueira-Arjona et al., 2012) showed high internal consistency (α = .95 total; subscales α = .85–.89) and strong test-retest reliability.

2.2.5. European Addiction Severity Index (EuropASI)

Adapted from the original ASI (McLellan et al., 1980), the EuropASI is a semi-structured clinical interview used to assess substance use severity across seven domains: medical, employment, alcohol and drug use, legal status, family/social relationships, and psychological health (Bobes et al., 1996). In this study, the Legal Status section was excluded due to sample homogeneity. Scores from 0 to 9 reflect severity levels. The instrument is widely used in both clinical assessment and research.

2.2.6. Symptom Checklist-90-R (SCL-90-R)

This 90-item self-report inventory measures psychological distress across nine clinical dimensions: somatization, obsessive-compulsiveness, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism (Derogatis & Savitz, 2002). It also provides three global indices: Global Severity Index (GSI), Positive Symptom Total (PST), and Positive Symptom Distress Index (PSDI). The Spanish version (González de Rivera et al., 2002) has shown good internal consistency (α > .70) and validated use in forensic and clinical populations.

2.3. Procedure

The original Impulsive-Compulsive Behaviours Checklist (ICB) was translated into Spanish using a rigorous parallel back-translation method (Brislin, 1986), following established cross-cultural

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adaptation protocols (Castellet et al., 2014; Nuñez et al., 2005). First, a bilingual translator converted the instrument from English into Spanish. A second bilingual translator, blind to the original, independently translated the Spanish version back into English. This process was repeated by two additional bilingual experts, resulting in two preliminary Spanish versions.

An expert panel consisting of the four bilingual translators and two clinical psychology researchers reviewed all versions. The panel evaluated semantic, conceptual, and functional equivalence across translations and finalized a single Spanish version with identical format and instructions to the original. The final version comprised 34 items assessing problematic impulsive and compulsive behaviors, each rated on a 4-point Likert scale from "never" to "always," with an optional checkbox for distress associated with each behavior. The original and translated versions are presented in Appendices A and B, respectively.

To evaluate clarity and comprehensibility, the Spanish version was pilot-tested with 30 university students and 30 members of the general public in Granada. Participants were encouraged to comment on the wording and instructions. Minor modifications were made based on their feedback to enhance clarity and acceptability.

Four trained researchers administered the complete assessment battery—including interviews, the ICB, and standardized psychological instruments—during individual sessions. All participants were informed about the study's aims, their right to withdraw at any time, and provided written informed consent. Debriefing was conducted at the end of each session. Ethical approval was granted by the Research Ethics Committee of the University of Granada (396/CEI/2018).

2.4. Statistical Analyses

Descriptive statistics for the Impulsive-Compulsive Behaviours Checklist (ICB) items were computed, including means, standard deviations, skewness, and kurtosis coefficients.

To examine validity based on internal structure, both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted. In Sample A, we tested the original two-factor model proposed by Guo et al. (2017) and explored an alternative structure via EFA. The resulting model was then evaluated in Sample B using CFA. Given the ordinal nature of the Likert-scale items and the number of items, analyses were based on the polychoric correlation matrix, using the robust unweighted least squares (RULS) estimation method (Holgado-Tello et al., 2010).

Bivariate normality assumptions were assessed by computing the percentage of pairwise correlations that violated the null hypothesis of bivariate normality at an alpha level of .05. The proportion of correlations with root mean square error of approximation (RMSEA) values < .10 was also reported (Jöreskog & Moustaki, 2001).

Model fit was evaluated using the Satorra-Bentler chi-square (S-Bχ^2) and the following indices: Comparative Fit Index (CFI; Bentler, 1992), Non-Normed Fit Index (NNFI; Bentler & Bonett, 1980), and RMSEA (Steiger, 2000). According to conventional criteria, CFI and NNFI values ≥ .95 indicate good fit, while RMSEA values < .06 suggest good fit, values between .06–.08 acceptable fit, and values > .08 poor fit (Hu & Bentler, 1999; MacCallum et al., 1996; McDonald & Ho, 2002).

McDonald's omega coefficient (ω) was used to estimate internal consistency reliability, with values ≥ .70 considered acceptable (Ventura-León & Caycho-Rodríguez, 2017). Additionally, corrected item-total correlations were calculated for item-level analysis, indicating the correlation of each item with the total score excluding that item.

To assess convergent validity, Spearman correlation coefficients were computed between ICB factor scores and external measures. These included the five UPPS-P impulsivity dimensions (Negative Urgency, Lack of Premeditation, Lack of Perseverance, Sensation Seeking, and Positive Urgency), the three OBQ-44 belief domains (Responsibility/Threat Estimation, Perfectionism/Certainty, and Importance/Control of Thoughts), and six EuropASI scales (Medical Status, Employment/Support, Alcohol Use, Drug Use, Family/Social Relationships, and Psychological Status). The Legal Status scale was excluded due to the homogeneous nature of the prison sample.

 doi:10.20944/preprints202507.1419.v1

Finally, we calculated Spearman correlations between ICB factors and the nine clinical dimensions of the SCL-90-R: Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation, and Psychoticism.

3. Results

3.1. Descriptive Item Analysis

Table 2 presents the descriptive statistics for the 34 items of the Impulsive-Compulsive Behaviours Checklist (ICB) as defined by Guo et al. (2017). Skewness and kurtosis values indicated significant departures from normality for most items.

Table 2. Descriptive statistics for item scores: Mean (M), Standard deviation (SD), Skewness, and Kurtosis.

Ítem	M	SD	Skewness	Kurtosis
1.Washing	3.70	.65	-1.725	4.197
2. Smoking	3.00	1.14	-.467	-.930
3. Feel compelled to collect free things (books, journals, sample items when shopping) or saving something you know you will never use	1.56	.80	1.740	3.556
4. Being overly cautious with money	2.24	1.01	.532	-.606
5. (Re) Arranging /Ordering	2.90	.96	-.089	-.895
6. Shopping	2.76	.91	.005	-.717
7. List making	2.04	.98	.675	-.519
8. Counting (e.g., money, tiles)	2.34	1.06	.476	-.674
9. Grooming	3.69	.67	-1.566	3.009
10. Idiosyncratic routines (performing a very personalized sequence of actions)	2.80	.98	-.325	-.748
11. Repeating actions (performing actions over and over again)	2.14	.98	.672	-.194
12. Exercising	2.74	.99	.033	-.948
13. Betting/Gambling	1.61	.79	1.356	1.651
14. Hair picking	2.00	.89	.720	-.016
15. Lying	1.89	.61	1.140	4.733
16. Sexual activities/behaviours	2.47	.93	.184	-.751
17. Calorie counting	1.37	.69	1.964	3.339
18. Alcohol consumption	2.11	.92	.919	.603
19. Planning (e.g., over organizing	2.08	.90	.731	.307
20. Illicit drug use	2.28	1.14	.618	-.465
21. Cleaning too much	2.34	.96	.481	-.283
22. Verbal aggression	1.75	.66	.632	.591
23. Violence towards objects/properties	1.37	.64	1.827	3.348
24. Swearing	1.81	.71	.784	.934
25. Checking (e.g., locks, light switches)	1.95	.95	.887	.085
26. Checking (e.g., yourself in the mirror)	2.32	.92	.555	-.189
27. Speeding when driving	2.13	.97	.692	-.145
28. Medication use	2.00	.92	.925	.446
29. Physical aggression	1.92	.82	.650	.099
30. Social networking (e.g., Facebook, Twitter, Google+, Myspace)	2.17	1.08	.514	-.839
31. Applying rules	2.64	.93	.129	-.933
32. Purposeful self-injury (i.e. non-accidental)	1.24	.56	2.838	9.939
33. Re-writing/re-reading	1.92	.85	.929	.737
34. Tattooing	1.95	.95	1.014	.529

3.2. Internal Structure: Confirmatory Factor Analysis (Sample A)

Based on the structure proposed by Guo et al. (2017), a confirmatory factor analysis (CFA) was conducted in Sample A to test a two-factor model comprising Impulsive-Compulsions and

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Compulsive-Impulsions. The estimated model converged normally and showed acceptable fit indices for the 34-item structure: Satorra-Bentler $\chi^2(522) = 344.17$, $p < .0001$; RMSEA = .095 (90% CI: 0.92–0.992); SRMR = .15; CFI = .54; NFI = .48; NNFI = .51. These indices indicate a limited but acceptable fit to the data structure.

3.3. Exploratory Factor Analysis (Sample A)

To further examine the factorial structure, an exploratory factor analysis (EFA) was performed using unweighted least squares (ULS) estimation with varimax rotation. Two factors were extracted, accounting for 20.59% and 11.62% of the variance, respectively.

Factor 1 grouped behaviours such as washing, collecting, compulsive ordering, list making, checking, grooming, planning, and social networking—reflecting compulsive tendencies. Factor 2 included items associated with impulsive behaviors such as smoking, gambling, lying, sexual activities, substance use, aggression, self-injury, and tattooing.

3.4. Confirmatory Factor Analysis (Sample B)

The factorial structure derived from the EFA was then tested in Sample B using CFA. Model 1, based on the two-factor solution, yielded:

Satorra-Bentler $\chi^2(526) = 825.26$, $p < .0001$; RMSEA = .048 [95% CI: .041–.054]; CFI = .92; NNFI = .91. All standardized loadings were statistically significant except for item 30, which was retained for theoretical reasons.

This model demonstrated good fit and theoretical coherence, supporting the construct validity of the instrument.

Table 3. Factorial structure. EFA and standardized solution for CFA.

	EFA		CFA	
Item	**F1**	**F2**	**F1**	**F2**
1.Washing	0.47		0.32	
3. Feel compelled to collect free things (books, journals, sample items when shopping) or saving something you know you will never use	0.42		0.19	
4. Being overly cautious with money	0.37		0.38	
5. (re) Arranging / Ordering	0.60		0.58	
6. Shopping	0.45		0.47	
7. List making	0.54		0.49	
8. Counting (e.g., money, tiles)	0.47		0.51	
9. Grooming	0.63		0.41	
10. Idiosyncratic routines (performing a very personalized sequence of actions)	0.53		0.47	
11. Repeating actions (performing actions over and over again)	0.47		0.45	
12. Exercising	0.45		0.18	
14. Hair picking	0.31		0.29	
17. Calorie counting	0.40		0.22	
19. Planning (e.g., over organizing)	0.53		0.50	
21. Cleaning too much	0.62		0.50	
25. Checking (e.g., locks, light switches)	0.40		0.47	
26. Checking (e.g., yourself in the mirror)	0.50		0.58	
30. Social networking (e.g., Facebook, Twitter, Google+, Myspace)	0.35		0.21	
31. Applying rules	0.36		0.16	
33. Re-writing/re-reading	0.38		0.33	
2. Smoking		0.44		0.28

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13. Betting/Gambling	0.53	0.50
15. Lying	0.50	0.51
16. Sexual activities/behaviours	0.32	0.31
18. Alcohol consumption	0.50	0.36
20. Illicit drug use	0.70	0.54
22. Verbal aggression	0.70	0.58
23. Violence towards objects/properties	0.77	0.77
24. Swearing	0.54	0.54
27. Speeding when driving	0.60	0.60
28. Medication use	0.51	0.37
29. Physical aggression	0.31	0.33
32. Purposeful self-injury (i.e. non-accidental)	0.63	0.55
34. Tattooing	0.39	0.41

3.5. Reliability and Item Analysis

For the Impulsive-Compulsions factor (F1), McDonald's omega was .80 and Cronbach's alpha was .79. For the Compulsive-Impulsions factor (F2), omega was .79 and alpha .80, indicating satisfactory internal consistency.

Corrected item-total correlations ranged from .18 to .52 for F1, with only item 31 below .20. For F2, correlations ranged from .28 to .59, suggesting good homogeneity.

3.6. Convergent Validity

Spearman correlations were calculated to assess associations between ICB factor scores and external validity measures.

Impulsive-Compulsions (Factor 1) showed negative correlations with UPPS-P dimensions Lack of Premeditation (–.230) and Lack of Perseverance (–.221), and positive correlation with Sensation Seeking (.178). It also correlated positively with OBQ-44 dimensions Responsibility/Threat Estimation (.205) and Importance/Control of Thoughts (.289). No significant correlations were observed with the OBQ Perfectionism/Certainty dimension, EuropASI domains, or total score. Table 4.2 shows additional correlations with the SCL-90-R: Obsessive-Compulsive (.194) and Depression (.159).

Compulsive-Impulsions (Factor 2) correlated significantly with all UPPS-P dimensions, notably with Negative Urgency (.521), Sensation Seeking (.391), and Positive Urgency (.428). Positive correlations were also found across OBQ-44 domains: Responsibility/Threat Estimation (.226), Importance/Control of Thoughts (.134), and Perfectionism/Certainty (.140).

Factor 2 was positively associated with five EuropASI scales—Medical Status (.146), Employment/Support (.195), Alcohol Use (.437), Drug Use (.590), and Total Score (.617)—but not with Family/Social Relationships.

In relation to the SCL-90-R, Factor 2 showed significant positive correlations with all nine dimensions: Somatization (.152), Obsessive-Compulsive (.298), Interpersonal Sensitivity (.216), Depression (.195), Anxiety (.324), Hostility (.293), Phobic Anxiety (.164), Paranoid Ideation (.156), and Psychoticism (.278).

Table 4.1. Spearman`s correlations between factor 1 and 2 of ICB and the dimensions of UPPS P, OBQ-44 and EuropASI.

	ICB Factor 1	**ICB Factor 2**		**ICB Factor 1**	**ICB Factor 2**
UPPS-P			**EuropASI**		
Lack of Premeditation	-0.230**	0.204**	Medical status	0.087	0.146*
Negative Urgency	0.067	0.521**	Employment/support	0.018	0.195**
Lack of Perseverance	-0.221**	0.095	Alcohol use	0.008	0.437**

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Sensation Seeking	0.178**	0.391**	Drug use	0.018	0.590**
Positive Urgency	0.051	0.428**	Family/social relationships	-0.003	0.040
OBQ-44					
Responsibility and threat estimation	0.205**	0.226*	EuropASI Total	0.082	0.617**
Importance and control of thoughts	0.289**	0.134*			
Perfectionism/certainty	0.081	0.140*			

Note. ICB Checklist=Impulsive-Compulsive Behaviours Checklist; OBQ-44=Obsessive Beliefs Questionnaire-44; UPPS-P=Positive Urgency Impulsive; EuropASI=European Addiction Severity Index. **$p < .001$, *$p < .005$

Table 4.2. Spearman`s correlations between factors 1 and 2 of ICB and dimensions of SCL-90.

	ICB Factor 1	**ICB Factor 2**
SCL-90		
Somatization	0.088	0.152**
Obsessive-compulsive	0.194**	0.298**
Interpersonal sensitivity	0.086	0.216**
Depression	0.159**	0.195**
Anxiety	0.107	0.324**
Hostility	0.098	0.293**
Phobic anxiety	0.063	0.164**
Paranoid ideation	0.083	0.156**
Psychoticism	0.069	0.278**

Note. SCL-90=The Symptom Checklist-90. **$p < .001$, *$p < .005$.

4. Discussion

This study aimed to examine the psychometric properties of the Spanish version of the Impulsive-Compulsive Behaviours Checklist (ICB) and evaluate its structural validity in a prison population. Impulsivity and compulsivity have been identified as key transdiagnostic traits underlying a wide spectrum of psychiatric disorders and maladaptive behaviors, including substance use and criminal conduct (López-Torrecillas, 2025; Robbins et al., 2024). While impulsivity has been extensively linked to externalizing behaviors and aggression, compulsivity has received comparatively less empirical attention in forensic contexts (Clarke et al., 2024; Overmeyer & Endrass, 2025). Moreover, available tools assessing compulsivity have primarily been validated in general populations and rarely applied in incarcerated samples.

Our findings indicate that the Spanish version of the ICB demonstrates adequate reliability and validity in a prison setting. Internal consistency for the two subscales—Impulsive-Compulsions and Compulsive-Impulsions—was satisfactory, as indicated by McDonald's omega and Cronbach's alpha coefficients, closely mirroring those reported in the original validation by Guo et al. (2017). While the overall model fit was slightly lower than that of the original study, this may be attributable to differences in sampling, as our data were drawn exclusively from incarcerated individuals.

The confirmatory and exploratory factor analyses supported a stable two-factor structure consistent with the original conceptualization. Factor 1, comprising 20 items, included predominantly compulsive behaviors such as checking, cleaning, ordering, and planning, while Factor 2, with 14 items, encompassed more overtly impulsive and risk-related behaviors including substance use, aggression, and self-injury. These factors explained 20.59% and 11.62% of the total variance, respectively, and all loadings (except item 30) were statistically significant and conceptually coherent.

Construct validity was supported through significant associations with related psychological constructs. Factor 1 showed negative correlations with Lack of Premeditation and Lack of Perseverance, and positive correlations with Sensation Seeking (UPPS-P) and certain OBQ-44

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domains, notably Responsibility/Threat Estimation and Importance/Control of Thoughts. Interestingly, compulsive tendencies (Factor 1) were only weakly associated with psychopathological symptoms, suggesting a less harmful but more rigid and rule-governed behavioral style—potentially more adaptive in institutional environments. These results underscore the ICB's utility in distinguishing between clinically relevant subtypes of self-regulatory deficits, particularly where OBQ-44 fails to differentiate between impulsivity and compulsivity.

Conversely, Factor 2 was significantly associated with all UPPS-P and OBQ-44 dimensions, as well as multiple domains of the EuropASI and all nine dimensions of the SCL-90-R. These findings reinforce the idea that compulsive-impulsive traits are linked to broader psychopathology and higher behavioral risk. The association between Factor 2 and domains such as Negative Urgency, Sensation Seeking, and Positive Urgency aligns with previous studies linking these traits to substance use and aggression in correctional populations (Brassard & Joyal, 2022; Bresin, 2019; Cong et al., 2024).

Notably, items in Factor 2 reflect high-risk behaviors with clinical and legal consequences (e.g., drug use, violence, impulsive sexual behavior), whereas Factor 1 items generally reflect low-risk repetitive behaviors (e.g., grooming, list making, rule checking). Thus, Factor 2 may serve as a stronger indicator of dangerousness and clinical severity. These findings support previous assertions that compulsivity—particularly when intertwined with impulsivity—can be functionally impairing and predictive of institutional maladjustment (Clarke et al., 2024; Robbins et al., 2024).

The ICB's capacity to reflect both dimensional and transdiagnostic perspectives on behavioral dysregulation is aligned with contemporary models such as the Research Domain Criteria (RDoC) initiative (Cuthbert & Insel, 2013). Unlike traditional disorder-specific instruments, the ICB provides a more nuanced framework for identifying overlapping symptoms across conditions, facilitating individualized treatment planning in high-risk settings.

5. Limitations and Future Directions

This study has several limitations. First, the sample was restricted to male inmates, limiting generalizability to female or non-incarcerated populations. This restriction was based on two main reasons: (1) the study assessed offenses such as gender-based violence, typically defined as male-to-female aggression; and (2) the prison population is predominantly male, with five times more men than women. Second, the lack of a control group prevents direct comparison with community norms. Third, no clinical diagnoses were included, precluding examination of discriminant validity across psychiatric subtypes.

Future research should explore the discriminative power of individual ICB items in differentiating impulsivity and compulsivity profiles, and examine its relevance to specific diagnoses such as antisocial or obsessive-compulsive personality disorder. Studies involving broader samples—including women—and applying the ICB alongside symptom-based scales and longitudinal follow-up will be essential for establishing its predictive validity and clinical utility. Additionally, its use as a screening tool and treatment outcome measure in forensic populations warrants further investigation.

6. Conclusions

The Impulsive-Compulsive Behaviours Checklist (ICB) is a brief, clinically useful instrument designed to assess a wide spectrum of impulsive and compulsive behaviors beyond traditional diagnostic boundaries. This study represents the first validation of the ICB in a Spanish-speaking prison population and provides evidence for its robust psychometric properties in this high-risk context.

The Spanish version of the ICB demonstrated satisfactory internal consistency, a theoretically coherent two-factor structure, and good construct validity through significant associations with established measures of impulsivity, compulsivity, addiction severity, and psychopathology (UPPS-

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P, OBQ-44, EuropASI, and SCL-90-R). These results support the instrument's applicability in forensic settings for screening, assessment, and treatment planning.

Future research should further investigate the ICB's predictive validity and its potential as a transdiagnostic clinical tool across broader and more diverse samples.

Funding: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Ethics Approval and Informed Consent Statement: The study was conducted in accordance with the Declaration of Helsin,ki and approved by the Research Ethics Committee of the University of Granada (396/CEIH/2018, 20 February 2018). Informed consent was obtained from all participants involved in the study.

Data Availability Statement: Data from this study are available upon request from the corresponding author.

Acknowledgments: The authors appreciate the permission to perform this study from the General Secretary of Penitentiary Institutions. The authors also thank all participants and staff who contributed directly or indirectly to the research.

Conflicts of Interest: The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Impulsive-Compulsive Behaviours Checklist (ICB)

This list consists of several behaviours that we all engage in from time to time. It can be challenging to be honest about your level of involvement in these behaviours and therefore we emphasize that all information here will be confidential. You will not be judged in any way based on your answers and we encourage you to fill in the items on this list honestly and accurately. When considering your responses, please do not include issues that are caused by medical conditions (e.g., diabetes, erectile dysfunction).

Please answer the questions below for every behaviour on the list by selecting the appropriate response on the scale ranging from 'Not at all' to 'All the time'. Please answer each question as it applies to you over the last 12 months.

Do YOU and/or OTHERS think you have an issue/ problem with any of the following behaviours?

1=Never; 2=Sometimes; 3=Often; 4= Always

	1	2	3	4
1. Washing				
2. Smoking				
3. Feel compelled to collect free things (books, journals, sample items when shopping) or saving something you know you will never use				
4. Being overly cautious with money				
5. (re) Arranging / Ordering				
6. Shopping				
7. List making				
8. Counting (e.g., money, tiles)				
9. Grooming				
10. Idiosyncratic routines (performing a very personalized sequence of actions)				
11. Repeating actions (performing actions over and over again)				
12. Exercising				
13. Betting/Gambling				
14. Hair picking				

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15. Lying
16. Sexual activities/behaviours
17. Calorie counting
18. Alcohol consumption
19. Planning (e.g., over organizing
20. Illicit drug use
21. Cleaning too much
22. Verbal aggression
23. Violence towards objects/properties
24. Swearing
25. Checking (e.g., locks, light switches)
26. Checking (e.g., yourself in the mirror)
27. Speeding when driving
28. Medication use
29. Physical aggression
30. Social networking (e.g., Facebook, Twitter, Google+, Myspace)
31. Applying rules
32. Purposeful self-injury (i.e. non-accidental)
33. Re-writing/re-reading
34. Tattooing

Appendix B. Listado de Comportamientos Compulsivos-Impulsivos (ICB)

A continuación le presentamos una lista de comportamientos que todos podemos realizar de vez en cuando. Lee cada frase y decide en qué grado te describe. No vas a ser juzgado/a por tus respuestas. No hay respuestas correctas o erróneas. Probablemente estarás de acuerdo con algunas frases y en desacuerdo con otras. Por favor, indica tus comportamientos y sentimientos personales sobre cada frase, marcando con una cruz lo que mejor describa tu conducta o sentimiento. Se muy sincero/a e intenta describirte cómo eres realmente es y no como te gustaría ser.

1=Nunca; 2=Algunas veces; 3=A menudo; 4= Siempre

	1	**2**	**3**	**4**
1. Lavarme				
2. Fumar				
3. Coleccionar artículos gratuitos (libros, revistas, muestras de regalo) o guardar algo que sabes que nunca vas a utilizar				
4. Ser excesivamente prudente con el dinero				
5. Reorganizar y ordenar				
6. Comprar				
7. Hacer listas de tareas				
8. Contar (dinero, fichas, piezas, etc.)				
9. Asearme				
10. Rutinas personales				
11. Acciones repetitivas (hacer una y otra vez la misma actividad)				
12. Hacer ejercicio				
13. Hacer apuestas				
14. Tocarme o arrancarme el pelo				
25. Mentir				
16. Realizar comportamientos/actividades sexuales				
17. Contar calorías				

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18. Consumir alcohol
19. Planificar u organizar demasiado
20. Consumir drogas ilegales
21. Limpiar demasiado
22. Realizar agresiones verbales
23. Realizar violencia hacia objetos de valor
24. Realizar juramentos
25. Realizar comprobaciones (cerraduras, interruptores de luz, etc.)
26. Realizar comprobaciones (ejemplo, mirarme en el espejo)
27. Conducir a alta velocidad
28. Usar medicamentos
29. Agredir físicamente
30. Usar redes sociales por ejemplo Facebook, Twitter, Google+, Myspace
31. Regirme por las normas
32. Autolesionarme conscientemente (no de manera accidental)
33. Reescribir y releer
34. Hacerme tatuajes

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