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# Exploring hypersexuality pathways from eye movements: The role of (sexual)impulsivity

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The authors report no conflicts of interest

## Abstract

Background: Impulsivity is regarded as a key factor underpinning hypersexuality like-conditions. However, impulsivity is a multifaceted construct, and existing research has not been capturing such complexity, which includes the effects of domain-general and domain-specific impulsivity in hypersexuality.

Aim: The aim of this study was to test the predictive role of specific impulsivity domains, i.e., domain-general and domain-specific, in hypersexuality and its associated consequences.

Methods: Fifty-five men and 58 women went through an emotional Go/-no-Go task (including sexual, high-valence positive, and neutral pictures), aimed at capturing domain-general and domain-specific impulsivity. Ocular metrics were further consider in order to increase the validity of the experimental task, and provide a metric of attention capturing. The study was carried out in a community sample.

Outcomes: Self-reported (general)impulsivity and commission errors toward high-valence positive and sexual pictures (signaling domain-general and domain-specific impulsivity, respectively) were settled as independent variables, along with Time to First Fixation to stimuli, capturing early/uncontrolled attention. Scores on hypersexuality and negative consequences emerging from hypersexual behavior were settled as outcome variables.

Results: Self-reported (general)impulsivity was the only predictor of hypersexuality scores, while negative consequences were best accounted by higher fixation time to sexual pictures. In all, findings did not support the role of domain-specific impulsivity (i.e., *sexual* impulsivity) in hypersexuality.

Clinical Translation: Findings tentatively suggest that hypersexuality, as captured at the community level, may be best positioned within the general spectrum of psychopathology, thus influencing educational and clinical intervention protocols aimed at addressing hypersexuality

related complaints. Protocols would be expected to primarily target general psychopathology phenomena, rather than specific sexual aspects.

Strengths & Limitations: This study implemented an innovative approach to capture different impulsivity domains, thus adding to previous literature in the field. However, the current study precludes the generalization of findings to clinical samples, where psychological comorbidities are expected to impact results. Further, findings must be read with caution given to limited effect sizes.

Conclusion: While hypersexuality was related to self-reported (general)impulsivity, findings on the negative consequences associated with hypersexual behavior mirrored response patterns found in depression. Such evidence aligns with the assumption that hypersexuality related phenomena might be better positioned in the psychopathology domain, rather than simply framed as a specific sexual problem.

KEY-WORDS: Hypersexuality; Impulsivity, Sexual Impulsivity, Go/No-Go, Eye Tracking, First Fixation

**Exploring hypersexuality pathways from eye movements: The role of (sexual)impulsivity**

Hypersexuality has been defined as the propensity to experience intrusive and out of control sexual thoughts, urges and behaviors, resulting in aversive individual and interpersonal consequences [1]. Due to the number of etiological competing models, distinct terminologies have emerged, e.g., sexual impulsivity, sexual compulsivity, sexual addiction, etc., [2, 3]. Hypersexuality was deemed an umbrella term, embracing all those concepts under a single label [4]. This is justified by the fact that all the above-mentioned conceptualizations include failing to control sexual urges/expression as a core feature [5]. Hypersexual Disorder, a constellation of emotional symptoms and (sexual)behaviors resulting in distress (see 4 for complete criteria) was proposed for inclusion in DSM-5, but finally rejected [6]. Currently, the symptomatic presentation of hypersexuality can be framed under other specified disruptive, impulse control, and conduct disorder in DSM-5, as suggested by Kafka [7]. Despite strong controversy and rejection, the phenomenon of hypersexuality continues to be researched both at the clinical and community level [3]; therefore, the concept of hypersexuality (as opposing to Hypersexual Disorder) is used as reference in the non-clinical population [8].

Among the various conceptualizing models of hypersexuality, this work focused on the impulsivity pathway. Barth and Kinder [2] postulated that out of control sexual behavior can be accounted by the impulsivity spectrum. Symptoms associated with sexual impulsivity, as conceptualized by Barth and Kinder's model, overlap with other impulsivity conditions such as pathological gambling. These conditions are characterized by increased tension and sense of urgency before an irresistible, potentially aversive behavior, which is then followed by immediate (but short-lived) relief and gratification. In this regard, out of control sexual behavior results from poor behavior inhibition rather than excessive sexual desire [2, 4]. This perspective on hypersexual behavior goes beyond frequency of sex, promiscuity, or any other attempt of merely quantifying sexual behavior [2].

In line with the impulsivity framework, there is evidence that links out of control sexual behaviors with impulsivity [9, 10]; out of control sexual behavior overlaps with some kind of impulse control disorder up to 17% of the cases [4]. Likewise, hypersexual male patients were found to present increased impulsivity, measured by self-report and a Go/No-Go experimental task; Even so, imaging data were not aligned with the impulsivity profile [11]. Furthermore, self-reported impulsivity was the best predictor of sexual compulsivity in a sample of Portuguese community women [12]. A new diagnosis in the 11th version of International Classification of Diseases [13], Compulsive Sexual Behavior Disorder, is placed on the impulsivity spectrum [14], which further points to the centrality of impulsivity in hypersexuality. However, research on the links between impulsivity and hypersexuality is still limited and does not differentiate between domain-general versus domain-specific impulsivity contribution [15, 16].

Impulsivity is the propensity to act unpremeditatedly, predisposing individuals to hasty responses, with little concern regarding aversive consequences [17, 18]. Considering that individuals may respond impulsively in some, but not all situations, addressing impulsivity requires a finer assessment. Whether self-report or behavioral measures are used, impulsivity can be assessed at the domain-general (capturing impulsivity as a general construct) and domain-specific levels (capturing impulsivity as a context-specific reaction) [19]. Indeed, domain-specific factor models were shown to predict impulsive behavior better than a domain-general model [20]. Evidence on domain-specific structures have been found in the problematic internet and substance use domains [21], in the distress/emotional regulation domain [22], or even in the context of working memory networks [23]. The differentiation between domain-general and domain-specific is especially important in hypersexuality research. While domain-general impulsivity may be a common characteristic of hypersexual individuals, there is no evidence about domain-specific (or sexual) impulsivity. Thus, it is unclear whether domain-

general or domain-specific impulsivity is a better predictor of hypersexuality[1] [16]. Within this regard, general versus sexual inhibition mechanisms were deemed independent constructs, such that the inhibition of sexually derived responses was independent of the suppression of non-sexual responses; likewise, the ability to control general behavior was not related with the ability to control sexual arousal in the context of negative and risky consequences resulting from sex [24]. In addition, general versus sexual inhibition were activated by different neural pathways [25]. Such evidence supports that general versus sexual inhibition specific mechanisms may underpin hypersexuality-like conditions, particularly when individuals face negative consequences associated with sexual behavior. Disentangling the role of domain-general versus domain-specific impulsivity may thus clarify the structure of hypersexuality, the existence of potential transdiagnostic factors, and help refining intervention targets in cases of significant impairment.

In order to contribute to the literature on the role of impulsivity in hypersexuality, this study explored how well domain-general and domain-specific impulsivity predicts hypersexuality and its behavioral consequences in a non-clinical sample. In order to accomplish this goal, an emotional Go/No-Go task, i.e., an experimental task aimed at capturing impulsivity and emotional modulation, disentangling domain-general versus domain specific impulsivity (general impulsivity versus *sexual* impulsivity) [26, 27] was carried out with an eye tracker. Self-report (general)impulsivity, along with commission errors (a behavioral metric indexing impulsivity) in the Go/No-Go task were independent variables. Taking advantage of the eye tracking methodology, the ocular parameter Time to First Fixation (TTFF) was further considered. The TTFF indicates the amount of time that it takes an individual to look at a

[1] Proxies of impulsivity (e.g., decreased inhibitory control, inattention, impulsive decision-making, delay discounting) and measurement approaches (e.g, Stop-signal test, Stroop, Delay-discounting Test) are diverse. In this work, we focused on the behavior inhibition component as captured by a Go/No-Go task within the domain-general vs domain-specific frame, thus building on previous hypersexuality literature and an identified research question (11, 16).

specific Area of Interest (AoI) from stimulus onset [28]. TTFF can be thought as early measure of processing [29] and it can provide information about how certain aspects of a visual scene are prioritized, capturing early/uncontrolled attention and hence, indexing *interest* [30, 31]. TTFF was also treated as independent variable. Hypersexuality scores and consequences related to hypersexual behavior were dependent variables (outcomes).

In the light of current literature, we aimed to provide evidence about links between domain-general and domain-specific impulsivity and hypersexuality; which one is a better predictor of hypersexuality? We expected that self-reported (general) impulsivity, as well as commission errors toward high-valence positive pictures (which signal general/non-sexual impulsivity; see the Methods section) would significantly predict hypersexuality and its behavioral consequences (Hypothesis 1, H1). As for domain-specific impulsivity (i.e., *sexual* impulsivity), captured by commission errors associated with sexual pictures, we took an exploratory approach given the lack of evidence. To this end, we compared the contribution of *sexual* impulsivity relative to general impulsivity to the two outcomes (Research question 1; RQ1). Finally, given that individuals with higher hypersexuality scores have been found to display early oriented attention (i.e, increased interest) toward sexual pictures [32], we also explored the following research question (RQ2): "Does early/uncontrolled attention predict hypersexuality?".

## Method

### Participants

Fifty-five men and 58 women participated in a laboratory procedure ($M_{age}$ = 22.36, SD = 5.98; $M_{age}$ = 22.50, SD = 6.47, respectively). Most men completed high school (middle school 1.9%, high school 50.9%, college degree 47.2%), while the majority of women had a college degree (middle school 1.7%, high school 32.2%, college degree 66.1%). Inclusion

criteria were age ≥18, self-reported heterosexuality, and no report of neurological disorders. Fourteen participants (8 women) reported past mood/anxiety problems. The study was advertised trough social and institutional/university media, and took place at the xxxxxx blinded xxxxxx, after approval from the local ethics committee. All participants gave written informed consent and received no compensation for participating. No dropouts were registered.

Procedures and Materials

Participants went through an emotional Go/No-Go task, i.e., an experimental task aimed at measuring behavioral inhibition. In this task, participants are required to respond (press Spacebar) as rapidly as possible to frequent i.e., Go stimuli, and suppress their response to infrequent, i.e., No-Go stimuli. The frequency of Go stimuli is higher than the frequency of No-Go stimuli, creating a response tendency; participants must inhibit their responses to the No-Go stimuli, despite the experimentally induced tendency to respond them [27].

The Go and No-Go stimuli consisted of 50 pictures in .JPEG extension divided by three categories: 10 sexual pictures (displaying nudity and genitals in heterosexual couples), 10 high-valence positive pictures (extreme sports), and 30 neutral pictures (10 mushrooms, 20 household objects)[2]. All pictures were resized to 240 X 540 resolution, using CS6 Photoshop Software. Sexual and positive pictures were selected so their levels of arousal corresponded. Sexual, high-valence positive and neutral pictures (mushrooms) were displayed at both sides of the screen (2x) as No-Go stimuli across three independent blocks. Each block consisted of 60 pictures, randomly presented to participants. Blocks included 67% of Go, and 33% of No-Go stimuli, in ways that all types of pictures would have the same chance of being No-Go pictures, differentiating domain general versus domain-specific impulsivity. In total, 180 pictures were displayed for each participant. Accordingly, commission errors (press Spacebar in No-Go

[2] All pictures were retrieved from validated databases in sexology research (EROSimag/UP-UA. Pt [33]) and experimental psychology (International Affective Picture System: IAPS [34]).

stimuli) to positive pictures indexed domain general impulsivity, while commission errors to sex pictures indexed domain-specific/sexual impulsivity [35]. We presented a fixation cross for 500ms, at the center of the screen, immediately followed by a picture randomly displayed for 1s, at the right or left side of the screen, as depicted in Figure 1. The interstimulus interval was randomized according to one, 1.5, and 2s, to prevent anticipatory responses. All pictures were equidistant from the fixation cross. Participants were instructed to keep still in order to ensure a distance of 60 cm from the centre of the screen during the task. A low brightness level (42lux) was kept constant during all the task. At the end, participants were thanked and dismissed. The participants took an average of 20 minutes to complete the task. An eye tracker was used (Tobii X3-120, Tobii Technology AB, Sweden) in order to track valid responses, ensuring participants initiated their ocular saccade from the fixation cross at the center of the screen, and actually hit the stimulus. The eye tracker further allowed us to collect TTFF, indexing early/uncontrolled attention toward stimuli [31].

Previously to the experimental task, participants were asked to complete a brief questionnaire that included the Hypersexual Disorder Screening Inventory (HDSI; 36), the Hypersexual Behavior Consequences Scale (HBCS; 37), and the Barratt Impulsiveness Scale (BIS-11; 38). The HDSI is a measure developed by the DSM-5 task force to assess hypersexuality tendencies (e.g., “I have spent a great amount of time consumed by sexual fantasies and urges as well as planning for and engaging in sexual behavior”, “I have tried to reduce or control the frequency of sexual fantasies, urges, and behavior but I have not been very successful”). The measure has been used in clinical and community-samples, with higher scores suggesting higher tendencies. While the taxometric versus dimensional structure of HDSI has not been established [36], the measure is frequently used as capturing hypersexuality dimensionally; indeed, despite the psychiatric tradition of using a categorical classification, evidence supports the dimensional nature of hypersexuality phenomena [39]. In addition, the

HBCS captures a set of emotional and behavior consequences emerging from hypersexual behavior, thus extending the range of negative consequences emerging from sex (e.g., "I have failed to keep an important commitment because of my sexual activities", "My sexual activities have interfered with my ability to experience healthy sex" [37]. The BIS-11 is a measure of impulsivity, not related to the sexuality domain (e.g., "I plan tasks carefully", "I change jobs easily") [38]. The 7-item HDSI yielded a .83 Cronbach's alpha in the current study. The 22-item HBCS also had a satisfactory reliability (Cronbach's α = .87). The 30-item BIS-11 Cronbach's alpha for the total score was .81.

*** FIGURE 1 ABOUT HERE ***

Data preparation and analytic plan

The Velocity-Threshold Identification (I-VT) fixation classification algorithm was used by Tobii Pro Studio (Tobii Technology AB, Sweden) to identify ocular fixations. To examine the TTFF, two AoI were manually drawn around each location where pictures were displayed on the screen (240 x 540px). In addition, an AoI around the fixation cross (75 x 75 px) was drawn. The following criteria were used to ensure valid fixations on AoIs (valid trials): 1) the endpoint of the initial saccade was within one of the AoIs; 2) the saccade latency was between 80 ms and 600ms [40]; 3) the ocular saccade initiated within the fixation cross AoI. Considering the total number of valid trials for each participant, the TTFF was computed. Results from a repeated-measures ANOVA with *Greenhouse-Geisser* correction revealed no significant difference in number of the valid trials among blocks: $F$ (1.60, 140.61) = 2.62, $p$ = .088, ηp2 = .03 ($M_{sex}$ = 33.38, SD = 1.51; $M_{positive}$ = 30.16, SD = 1.59; $M_{neutral}$ = 30.00, SD = 1.43).

As for statistical analysis, pictures' low features effects (potential confounders) were tested using ANOVAs. In addition, two multivariable OLS regression analyses were carried out

with hypersexuality scores and hypersexuality-related behavioral outcomes as dependent variable, respectively. The composite indicator of behavioral outcomes was log-transformed due to marked skewness. Tests of standard assumptions for OLS regression suggested that the regression model with hypersexuality-related behavioral outcomes deviated from multivariate normality and linearity, and was somewhat vulnerable to heteroscedasticity. As a robustness check, we repeated both regression analyses with all available cases, using multiple imputation method (with 50 imputations) to deal with missing information [41]. In total, there were seven missing values on the HDSI, 11 on the HBCS, and 16 on the BIS-11 measures. IBM SPSS 22 (SPSS Inc., USA) and JASP 0.14.1 [42] statistical software packages were used for data diagnostics, multiple imputation, and regression estimations.

## Results

### Descriptive statistics on HDSI, HBCS and BIS-11

The mean scores and standard deviation regarding HDSI, HBCS and BIS-11 were as follows: $M_{HDSI}$ = .53, SD = .60; $M_{HBCS}$ = 1.27, SD = .36; $M_{BIS\text{-}11}$ = 4.08, SD = .71. Also, correlations between the HDSI items ranged from .06 to .68 (with most of them being of small to moderate size). Finally, correlations between the HDSI items ranged from .06 to .68 (with most of them being of small to moderate size). Scores on HDSI did not reach the 20 threshold previously used as cut-off in a clinical sample [36]; the current scores range between .00 and 17.50.

### Controlling for potential confounders

Low-level features of pictures, such as apparent luminance and contrast, were previously analyzed using ImageJ v1.80 software. ANOVA results revealed no significant effects neither for the apparent luminance $F$ (2, 37) = 2.11, $p$ = .140, $\eta 2$ = 10 ($M_{sex}$ = 141.10, SD = 52.96; $M_{positive}$ = 98.39, SD = 42.60; $M_{neutral}$ = 118.35, SD = 45.07); nor contrast $F$ (2, 37) = 0.60, $p$ = .560, $\eta 2$ = .03 ($M_{sex}$ = .51, SD = .11;$M_{positive}$ = .68, SD = .11; $M_{neutral}$ = .62, SD =

.08). In all, the physical properties of stimuli seemed not to have an influence on participants' responses.

Markers of impulsivity and early attention in hypersexuality and associated consequences

Two multivariable OLS regression analyses were carried out with hypersexuality scores and hypersexuality-related behavioral outcomes as dependent variables. Self-reported general impulsivity and behavioral measures of domain-specific impulsivity were entered as independent variables, together with controls participants' age and gender. As presented in Table 1, hypersexuality scores were significantly (and positively) associated only with self-reported general impulsivity scores ($b = 0.29$, $p = 0.004$). Adverse behavioral outcomes were significantly related to self-reported general impulsivity ($b = 0.02$, $p = 0.044$), TTFF toward high-valence pictures ($b = 0.20$, $p = 0.018$) and neutral pictures ($b = 0.25$, $p = 0.028$) (Table 2). In both cases, longer TTFF was associated with higher adverse outcomes.

Given the observed aberrations from multivariate normality, linearity, and homoscedasticity in the second regression analysis, both multivariable regression analyses were repeated using all cases, following multiple imputation of missing data. While the pattern of significant findings remained unchanged in the hypersexuality model self-reported general impulsivity was confirmed as the sole statistically significant predictor of hypersexuality ($b = 0.26$, $p = 0.003$), there were some changes in the model with behavioral outcomes as dependent variable. Self-reported general impulsivity and TTFF toward neutral pictures ceased to be significantly associated with the outcome. In addition to TTFF toward high-valence positive pictures ($b = 0.20$, $p = 0.020$), male gender emerged as a predictor of hypersexuality-associated behavioral outcomes, but the link was weak ($b = -0.03$, $p = 0.043$) and bordering on significance.

*** TABLES 1 AND 2 ABOUT HERE ***

## Discussion

This study aimed to further the understanding of the role of impulsivity in hypersexuality and its behavioral consequences, by disentangling domain-general from domain-specific impulsivity contributions in a community sample. Within this regard, we hypothesized that self-reported (general) impulsivity and commission errors toward high-valence positive pictures (domain-general impulsivity) would significantly predict hypersexuality and associated behavioral consequences (H1). Given the lack of evidence, we also explored whether the two outcomes were significantly associated with commission errors related to sexual pictures (domain-specific impulsivity) (RQ1) and early/uncontrolled attention (indexed by shorter TTFF) (RQ2).

Our findings only partially supported H1. While self-reported general impulsivity predicted hypersexuality as expected, commission errors toward high-valence positive pictures (indexing general/non-sexual impulsivity) did not have a significant role. Interestingly, sexual impulsivity (commission errors to sexual pictures) were also unrelated to the outcomes (RQ1). It is widely recognized that despite these metrics capture impulsivity, they often do not correlate with each other [19]. This lack of substantial interrelatedness is often explained by pointing that the measures represent different facets of impulsivity [43], which is a multi-faceted construct, including cognitive and motor domains [44]. It is plausible that one, but not all impulsivity facets, predict hypersexuality. Additionally, self-reported impulsivity measures, compared to its behavioral metrics, are prone to social desirability. Given that the current findings align with previous studies in supporting the role of general (self-reported) impulsivity in hypersexuality [11, 12], while indicating that domain-specific impulsivity is not significantly related to either hypersexuality or its consequences, we may cautiously argue that hypersexuality appears to emerge within the large spectrum of impulsivity, rather than within the narrow context of sexual impulsiveness. The claim resonates with the view of impulsivity

as a transdiagnostic factor in hypersexuality-like conditions [16, 19] and supports the notion, that clinical interventions should target global vulnerability factors rather than primarily focus on sexual context. Our results are also compatible with the new ICD-11 concept of CSBD, which emphasizes impulse control problems rather than sexual dysfunction [14].

In the case of behavioral consequences of hypersexuality, neither self-reported nor behaviorally measured impulsivity predicted the consequences. The finding that increased time to first fixation (i.e., less interest) toward positive pictures was significantly associated with the outcome (RQ2) is surprising, but appears to be in line with the literature on depression, where individuals with depressive mood show a similar profile. Depressive symptomatology is associated with less responsiveness toward positive and neutral stimuli [45]. Likewise, depressive individuals are less prone at processing positive stimuli [46], while negative ones trigger their cognitive resources [47]. In the current study, hypersexuality consequences were significantly predicted by a reduced attention (i.e., lower interest) in high arousal positive-valence pictures, mirroring evidence in the context of depression. Indeed, the overlap between depressive mood, risky sexual behavior, and hypersexuality markers has been noted [48-51]. The diverse set of hypersexuality consequences, whether emotional (e.g., mental health consequences, self-esteem), social/interpersonal (e.g., diminished quality of relationships), or functional (e.g., consequences at job, criminal consequences), appear to be more strongly associated with poor positive affect than impulsivity. This interpretation of findings must be read with caution, as standard assumptions for OLS in the second regression analysis were not met.

Finally, although the contribution of gender was not the focus of this study, our findings hint that men, compared to women, may experience more substantial consequences of their hypersexuality. Yet, the result was inconsistent, bordering on significance, and the associated effect size was marginal, precluding the existence of evident gender specificities in the current

sample. Indeed, similar samples containing community men and women revealed similar hypersexuality patterns across genders [52-54].

Several study limitations need to be briefly addressed. While community samples are often used to explore the hypersexuality phenomenon [1, 55], non-clinical findings are often in disagreement with the findings from clinical studies in hypersexuality. One of the likely reasons is that clinical samples include higher impulsivity rates and more frequent psychiatric comorbidities. The fact that the variance explained by our regression models was low may be related, at least partially, to a limited variability in impulsiveness scores in community samples. Volunteer bias in experimental studies in human sexuality has been recognized [56]. Finally, given the sample size, it was not possible to analyze men and women separately. While previous studies on hypersexuality and psychopathological phenomena have found similarities between men and women [52, 54], future research is expected to disentangle gender specificities and further include clinical samples. Findings emerging from clinical samples are likely to depart given symptoms' severity and psychiatric comorbidities. Also, impulsivity neurobiological underpinnings are diverse, and other proxies may be of interest to the field of hypersexuality (e.g., inattention, impulsive decision-making).

Given the lack of evidence about the role of domain-general vs. domain-specific impulsivity in hypersexuality and its behavioral consequences, the current study offered preliminary evidence on how different facets of impulsivity may contribute to the target outcomes. Our findings tentatively supported the role of general impulsivity, suggesting that, in community samples, hypersexuality may be better accounted by the large spectrum of impulsivity, rather than by the sexual impulsivity domain. Although more evidence is needed, the current study suggests that addressing general psychopathology, rather than exclusively focusing on person's sexual expression, may prove beneficial in addressing hypersexuality-related problems. Within this regard, the current findings find echo on the proposal to consider

hypersexuality phenomena in the non-sexual dysfunction spectrum [7], particularly given its independency from sexual desire [52, 57, 58].

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Figure 1. Schematic diagram of trial structure and stimuli. ISI = interstimulus interval. The stimuli depicted in this figure do not represent the stimuli used in the real setting.

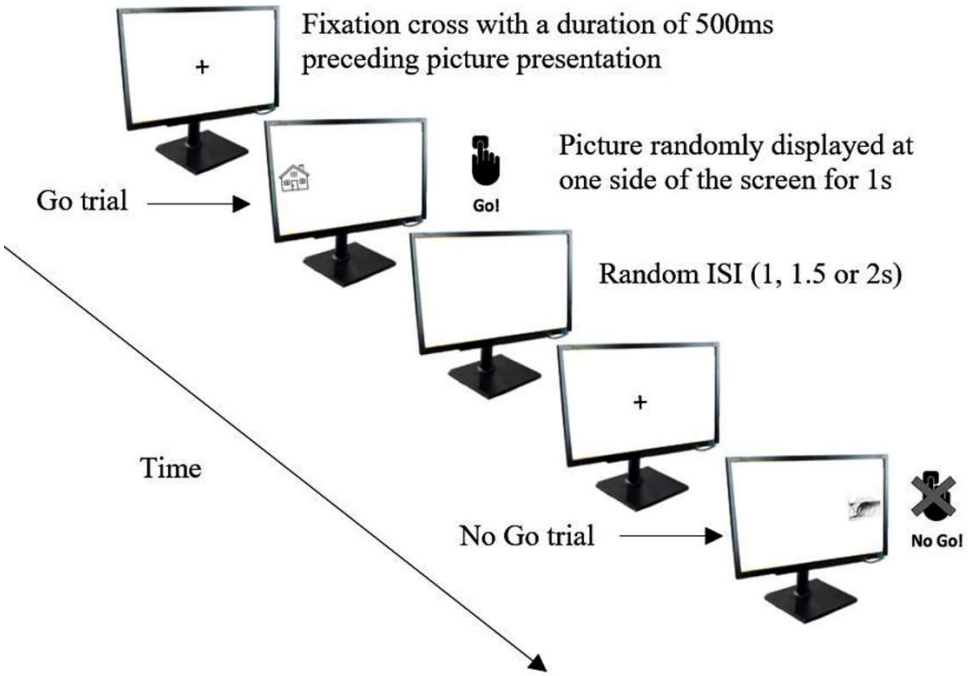

Table 1 – Predictors and Correlates of Hypersexuality ($N = 76$)

| | | | | | 95% CI | |
|---|---|---|---|---|---|---|
| | *b* | S.E. | β | *p* | Lower | Upper |
| (Intercept) | -0.251 | 0.686 | | 0.716 | -1.620 | 1.118 |
| Age | 0.009 | 0.009 | 0.108 | 0.329 | -0.009 | 0.027 |
| Gender | -0.176 | 0.135 | -0.145 | 0.197 | -0.446 | 0.094 |
| General impulsivity | 0.292 | 0.099 | 0.334 | 0.004 | 0.094 | 0.489 |
| Comission errors, neutral pictures | 1.258 | 1.608 | 0.098 | 0.437 | -1.953 | 4.469 |
| Comission errors, positive pictures | 0.014 | 0.455 | 0.004 | 0.976 | -0.896 | 0.923 |
| Comission errors, sex pictures | -3.222 | 2.638 | -0.145 | 0.226 | -8.490 | 2.045 |
| TTFF, neutral pictures | -0.560 | 1.053 | -0.059 | 0.597 | -2.662 | 1.542 |
| TTFF, positive pictures | -1.161 | 0.800 | -0.164 | 0.152 | -2.758 | 0.437 |
| TTFF, sex pictures | 0.513 | 1.032 | 0.056 | 0.620 | -1.546 | 2.573 |

Table 2 – Predictors and Correlates of Hypersexuality-Related Behavioral Consequences ($N$ = 75)

| | | | | | 95% CI | |
|---|---|---|---|---|---|---|
| | *b* | S.E. | β | *p* | Upper | Lower |
| (Intercept) | 0.178 | 0.072 | | 0.016 | 0.034 | 0.322 |
| Age | 0.001 | 0.001 | 0.026 | 0.812 | -0.002 | 0.002 |
| Gender | -0.025 | 0.014 | -0.191 | 0.088 | -0.053 | 0.004 |
| General impulsivity | 0.021 | 0.010 | 0.231 | 0.044 | 0.001 | 0.042 |
| Comission errors, neutral pictures | -0.031 | 0.169 | -0.023 | 0.853 | -0.369 | 0.306 |
| Comission errors, positive pictures | 0.012 | 0.048 | 0.030 | 0.805 | -0.084 | 0.108 |
| Comission errors, sex pictures | -0.017 | 0.278 | -0.007 | 0.952 | -0.572 | 0.538 |
| TTFF, neutral pictures | 0.249 | 0.111 | 0.249 | 0.028 | 0.028 | 0.471 |
| TTFF, positive pictures | 0.204 | 0.084 | 0.271 | 0.018 | 0.036 | 0.372 |
| TTFF, sex pictures | -0.061 | 0.109 | -0.063 | 0.577 | -0.278 | 0.156 |