



Therapeutic impact of yoga-based mindfulness on compulsive sexual behaviour disorder: A single clinical case study

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Abstract

Aim: To examine the therapeutic impact of an eight-week Yoga-Based Mindfulness intervention on the severity of Compulsive Sexual Behaviour Disorder (CSBD) and mindfulness traits in an adult diagnosed with CSBD.

Methods: A single-case pre-test–post-test clinical design was employed. One adult participant diagnosed with CSBD underwent a structured eight-week Yoga-Based Mindfulness programme comprising asanas, pranayama, Yoga Nidra, cyclic meditation, and mindfulness reflection. Sessions were conducted five days per week, resulting in a total of 44 sessions of 60 minutes each. Outcome measures included the Compulsive Sexual Behaviour Disorder Scale-19 (CSBD-19) to assess CSBD severity and the Five Facet Mindfulness Questionnaire (FFMQ) to assess mindfulness traits. Pre- and post-intervention scores were analysed using percentage change.

Results: following the intervention, CSBD severity decreased substantially, with the CSBD-19 score showing a 46.15% reduction, indicating a marked decline in compulsive sexual behaviours. Concurrently, mindfulness levels increased by 34.69% on the FFMQ, reflecting improvements in present-moment awareness, attention regulation, and non-judgemental observation of thoughts and emotions. These findings suggest that the yoga-based mindfulness intervention effectively supported both behavioural regulation and cognitive–emotional control.

Conclusion: The structured Yoga-Based Mindfulness intervention demonstrated preliminary efficacy in reducing compulsive sexual behaviours while enhancing mindfulness traits. The findings highlight the potential of integrative, non-invasive mind–body interventions for managing CSBD and improving self-regulation and emotional awareness. Future research employing larger samples and controlled designs is warranted to confirm and extend these findings.

Keywords: Compulsive sexual behaviour disorder (CSBD), yoga-based mindfulness, CSBD-19, five facet mindfulness questionnaire (FFMQ), behavioural regulation, mindfulness

Introduction

Compulsive Sexual Behaviour Disorder (CSBD) has emerged as a significant mental health concern in contemporary clinical psychology, characterised by persistent and repetitive sexual impulses or behaviours that are difficult to control and result in marked distress or functional impairment (World Health Organization [WHO], 2019) [1]. Recognised under the Impulse Control Disorders category in the ICD-11, CSBD is increasingly associated with emotional dysregulation, impaired self-control, heightened stress, shame, and reduced quality of life (Kraus *et al.*, 2018) [2]. Despite growing clinical recognition, effective non-pharmacological interventions for CSBD remain limited, particularly within culturally sensitive and integrative therapeutic frameworks.

Mindfulness-based approaches have gained empirical support for addressing impulse-control disorders by enhancing present-moment awareness, emotional regulation, and non-reactive observation of urges (Baer, 2003; Bowen *et al.*, 2014) [3,4]. By fostering an adaptive relationship with internal experiences, mindfulness allows individuals to observe cravings and compulsive urges without acting on them, thereby weakening habitual behavioural patterns (Garland *et al.*, 2014) [5]. Studies have further demonstrated that deficits in mindfulness are strongly associated with compulsive sexual behaviours, emotional avoidance, and impulsivity (Reid *et al.*, 2011) [6].

Yoga-based mindfulness represents an integrative mind–body approach that combines physical postures (*āsana*), breath regulation (*prāṇāyāma*), meditative awareness (Yoga

Nidra and Cyclic Meditation), and ethical self-observation. Unlike purely cognitive mindfulness interventions, yoga-based mindfulness engages both somatic and mental awareness, making it particularly suitable for disorders involving bodily urges and impulse dyscontrol (Khalsa *et al.*, 2016) [7]. Dispositional mindfulness has been shown to be negatively associated with indicators of compulsive sexual behaviour, suggesting that higher levels of mindfulness may help reduce maladaptive sexual urges and improve self-regulatory functioning in individuals exhibiting compulsive behaviours (Shorey *et al.*, 2016) [8]. Emerging evidence suggests that mindfulness-based and yoga-informed interventions may be beneficial in managing behavioural addictions, including problematic sexual behaviours, by reducing compulsivity and enhancing psychological flexibility (Bóthe *et al.*, 2020) [9]. Recent systematic evidence indicates that mindfulness-based interventions can improve emotional regulation, reduce compulsive sexual behaviours, and enhance awareness of bodily sensations and sexual urges, highlighting their therapeutic relevance for problematic sexual behaviours (Holas *et al.*, 2020) [10]. However, empirical studies specifically examining structured yoga-based mindfulness interventions for clinically identified CSBD remain scarce, particularly within the Indian context. Single-case clinical studies offer valuable preliminary insights into therapeutic mechanisms, feasibility, and individual-level change where large-scale trials are limited (Ciaurritz Larraz *et al.*, 2024) [11]. Yogic practices integrating postures, breath regulation, and meditative awareness have also been shown to modulate

autonomic balance and reduce craving-driven behaviours, thereby providing a neurophysiological basis for their use in compulsive and impulse-control related conditions (Streeter *et al.*, 2012)^[12].

Similarly, the Five Facet Mindfulness Questionnaire (FFMQ) provides a multidimensional assessment of mindfulness traits, including observing, non-reactivity, and acting with awareness—dimensions highly relevant to impulse regulation and behavioural control (Baer *et al.*, 2006)^[13]. Moreover, mindfulness-based practices have been shown to reduce impulsive responding by enhancing attentional control and non-reactivity to urges, supporting their application in disorders characterised by repetitive and dysregulated behaviours, including CSBD (Hölzel *et al.*, 2011)^[14].

Against this backdrop, the present clinical case study aims to examine the therapeutic impact of an eight-week Yoga-Based Mindfulness intervention on the severity of compulsive sexual behaviour and mindfulness traits in an adult diagnosed with CSBD. By integrating traditional yogic practices with contemporary mindfulness principles, this study seeks to contribute to the growing body of evidence supporting holistic, non-invasive, and culturally adaptable interventions for compulsive behavioural disorders.

Materials and Methods

The study employed a single-case pre-test and post-test clinical case study design to examine the therapeutic impact of a Yoga-Based Mindfulness intervention on Compulsive Sexual Behaviour Disorder (CSBD) and mindfulness levels. One adult participant diagnosed with CSBD was selected using purposive sampling, based on clinical relevance and fulfilment of predefined inclusion and exclusion criteria. The intervention was conducted in a controlled therapeutic setting in Rajasthan, India, ensuring consistency, privacy, and confidentiality throughout the study.

The intervention was conducted over a duration of eight weeks (two months). Sessions were conducted five days per week, resulting in a total of 44 sessions, each of one-hour duration. This structured schedule provided sufficient exposure to mindfulness-based yogic practices while allowing regular rest periods to facilitate psychological integration and recovery.

Prior to study initiation, written informed consent was

obtained from the participant after providing detailed information regarding the study’s purpose, procedures, and voluntary nature. Anonymity and confidentiality were strictly maintained, and the participant retained the right to withdraw at any stage without penalty. The intervention involved non-invasive, non-pharmacological yogic practices, ensuring minimal physical or psychological risk. Data were collected at two time points—pre-intervention (baseline) and post-intervention (after eight weeks)—under the investigator’s supervision to ensure accuracy. The CSBD-19 and Five Facet Mindfulness Questionnaire (FFMQ) were administered to assess changes in compulsive sexual behaviour severity and mindfulness traits. Statistical analysis was conducted using descriptive statistics. Pre–post intervention changes were analysed using percentage change to examine improvement or reduction in outcome measures. Visual comparison of pre- and post-intervention scores was also employed to evaluate therapeutic outcomes

Inclusion Criteria

- Adult individual clinically identified with Compulsive Sexual Behaviour Disorder.
- Willingness to participate in the complete 8-week intervention.
- Ability to understand and follow guided yogic and mindfulness practices.
- No prior regular engagement in structured mindfulness or yoga-based therapy.
- Psychological stability to participate in meditative practices.

Exclusion Criteria

- Presence of severe psychiatric disorders requiring intensive medical intervention.
- Current use of psychoactive or impulse-modulating medication.
- Substance dependence that may confound behavioural outcomes.
- Unwillingness or inability to commit to the full intervention schedule.
- Presence of acute medical or neurological conditions that could interfere with participation.

Variables of Studied and Assessment Tools

Independent Variable	Dependent Variables	Measuring Tools
Yoga-Based Mindfulness Intervention	Severity of Compulsive Sexual Behaviour	CSBD-19
	Mindfulness Traits	Five Facet Mindfulness Questionnaire (FFMQ)

Nature of the Tools

Compulsive Sexual Behaviour Disorder Scale-19 (CSBD-19): The CSBD-19 is a validated self-report instrument developed to assess the severity of compulsive sexual behaviour in accordance with ICD-11 diagnostic guidelines. The scale consists of 19 items covering five core domains: Control, Salience, Relapse, Dissatisfaction, and Negative Consequences. Responses are recorded on a 4-point Likert scale, with higher scores indicating greater severity of compulsive sexual behaviour. The CSBD-19 demonstrates strong psychometric properties and is widely used in both

clinical and research settings.

Five Facet Mindfulness Questionnaire (FFMQ): The FFMQ is a comprehensive self-report measure assessing mindfulness across five dimensions: Observing, Describing, Acting with Awareness, Non-Judging of Inner Experience, and Non-Reactivity to Inner Experience. The questionnaire consists of 39 items, rated on a 5-point Likert scale. Higher scores reflect greater dispositional mindfulness. The FFMQ was used to evaluate changes in mindfulness traits resulting from the yoga-based intervention.

Intervention Module: Yoga-Based Mindfulness Programme

S. No.	Activities	Duration	Remarks
1.	Introduction to the Session	5 Minutes	Orientation and therapeutic goal setting
2.	Opening Prayer	3 Minutes	Chanting of Shanti Mantra to induce mental calmness
3.	Mindful Breathing and Awareness Practices (Yogic Breathing)	10 Minutes	Breath-centred awareness to enhance self-regulation
4.	Yoga-Based Mindfulness Practices (Asana, Pranayama with Awareness, Body Scan, Sensory Awareness)	20 Minutes	Cultivation of present-moment awareness and impulse regulation
5.	Guided Meditation and Mindfulness Reflection (Yoga Nidra and Cyclic Meditation)	15 Minutes	Observation of urges, thoughts, and emotions without judgement
6.	Session Closure with Mantra Japa and Sankalpa	7 Minutes	Setting positive intention and silent reflection
Total Duration		60 Minutes	

Results and Discussion

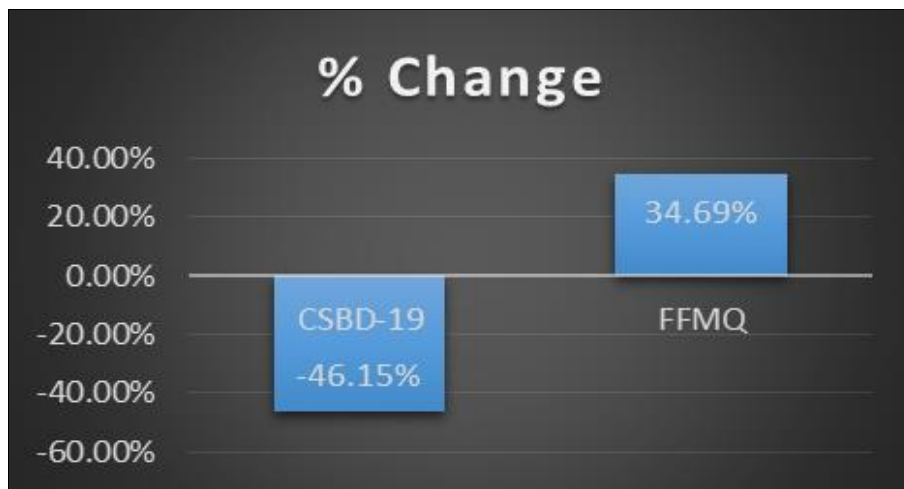


Fig 1: percentage changes in CSBD-19 and FFMQ scores

Table 2: percentage changes in CSBD-19 and FFMQ scores

Measure	% Change
CSBD-19	-46.15%
FFMQ	34.69%

The present study investigated the effect of a yoga-based mindfulness intervention on Compulsive Sexual Behaviour Disorder (CSBD) and mindfulness levels, measured using the CSBD-19 and the Five Facet Mindfulness Questionnaire (FFMQ), respectively. The percentage changes observed in both measures are presented in Figure 1 and Table 1.

Following the intervention, participants demonstrated a substantial reduction in CSBD symptoms, with the CSBD-19 score decreasing by 46.15%. This significant decline suggests that yoga-based mindfulness practices may effectively support the regulation of compulsive sexual behaviours, potentially by enhancing self-awareness, emotional regulation, and impulse control.

In parallel, mindfulness levels, as assessed by the FFMQ, increased by 34.69%, reflecting improvements in overall awareness, attention regulation, non-judgemental observation of thoughts and emotions, and behavioural flexibility. This indicates that engagement in yoga-based mindfulness practices can foster greater present-moment awareness and cognitive-emotional control, which may serve as protective factors against compulsive behaviours.

Together, these results suggest a dual benefit of yoga-based mindfulness interventions: decreasing maladaptive

behaviours associated with CSBD and enhancing adaptive psychological capacities such as mindfulness. Although these findings are based on a single-case study, they provide preliminary evidence supporting the potential utility of integrating yoga and mindfulness practices into therapeutic strategies for individuals with CSBD.

Discussion

The present study investigated the impact of a yoga-based mindfulness intervention on Compulsive Sexual Behaviour Disorder (CSBD) and mindfulness. Following the intervention, the participant showed a substantial reduction in CSBD symptoms (46.15%) and a notable increase in mindfulness (34.69%), suggesting that yoga-based mindfulness practices may effectively support behavioural regulation and self-awareness (WHO, 2019; Kraus *et al.*, 2018) [1, 2].

The decrease in CSBD symptoms could be explained by enhanced impulse control and emotional regulation facilitated through mindfulness, which allows individuals to observe urges non-judgementally and respond adaptively (Baer, 2003; Bowen *et al.*, 2014; Reid *et al.*, 2014) [3, 4, 6]. Yoga practices, including asanas and pranayama, may further contribute by balancing the autonomic nervous system and reducing physiological arousal, creating conditions for greater self-regulation (Khalsa *et al.*, 2016; Streeter *et al.*, 2012) [7, 8].

The observed increase in mindfulness indicates improvements in attentional control, present-moment

awareness, and emotional acceptance (Baer *et al.*, 2006; Hölzel *et al.*, 2011) [13, 14]. These skills likely supported reductions in compulsive behaviours by enhancing cognitive-emotional flexibility, consistent with prior findings on mindfulness-based interventions for addictive and compulsive behaviours (Shorey *et al.*, 2016; Holas *et al.*, 2020; Ciaurriz Larraz *et al.*, 2024) [8, 10, 11].

While these findings provide promising preliminary evidence, the study is limited by its single-case design and absence of a control group. Future research with larger samples and controlled designs is needed to generalise these results and further elucidate mechanisms of change.

Strengths of the Study

The present study demonstrates several strengths, including the use of a holistic yoga-based mindfulness intervention that addresses both mental and physical aspects of Compulsive Sexual Behaviour Disorder (CSBD). It employed validated assessment tools—CSBD-19 and FFMQ—to reliably measure changes in compulsive behaviour and mindfulness traits. The structured eight-week, 44-session programme ensured consistency and adequate exposure, while integrating culturally relevant yogic practices suitable for the Indian context. Despite being a single-case study, the intervention showed promising preliminary efficacy, with a notable reduction in CSBD symptoms (46.15%) and an increase in mindfulness levels (34.69%), highlighting its potential as a feasible, non-invasive therapeutic approach.

Limitations and Future Directions

This study has several limitations. First, it employed a single-case design, which restricts the generalisability of the findings to broader populations. Second, the absence of a control group means that changes in CSBD and mindfulness cannot be attributed solely to the yoga-based intervention; other factors such as spontaneous improvement or placebo effects may have contributed. Third, the short duration of the intervention limits understanding of the long-term sustainability of observed effects. Finally, self-report measures such as the CSBD-19 and FFMQ, while validated, may be subject to response bias or inaccuracies in self-assessment.

Future research should address these limitations by including larger, diverse samples and employing randomised controlled trial designs to establish causal relationships. Longitudinal studies would help determine the persistence of intervention effects over time. Additionally, incorporating physiological or neurobiological measures could provide objective evidence of underlying mechanisms, while exploring different combinations of yoga practices (asanas, pranayama, and meditation) may clarify which components are most effective in reducing compulsive behaviours and enhancing mindfulness.

Conclusion

The present study provides preliminary evidence that a yoga-based mindfulness intervention can substantially reduce Compulsive Sexual Behaviour Disorder (CSBD) symptoms while simultaneously enhancing mindfulness capacities. The observed improvements suggest that integrating yoga and mindfulness practices may support self-regulation, emotional balance, and attentional control, addressing both behavioural and psychological dimensions of CSBD. Despite being a single-case study, the findings

highlight the potential of holistic, mind–body approaches in clinical interventions for compulsive behaviours. Future research with larger samples and controlled designs is needed to validate and extend these results, paving the way for evidence-based incorporation of yoga and mindfulness into therapeutic strategies.

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