

ANALYZING THE EFFECTIVENESS OF HOLISTIC INTERVENTION MODELS ON WELL-BEING AND REHABILITATION SUCCESS IN ADDICTION CARE FACILITIES

Jenitha.T¹, Dr. Surendra Goswami²

Research Scholar, Department of Nursing, Malwanchal University, Indore¹

Research Supervisor, Department of Nursing, Malwanchal University, Indore²

ABSTRACT

Addiction remains a critical public health challenge in India, affecting millions and straining healthcare systems. This study examines the effectiveness of holistic intervention models incorporating psychological, social, and physical wellness components in addiction rehabilitation facilities. The research employed a quantitative approach, analyzing data from 250 participants across five rehabilitation centers in India over 12 months. The hypothesis posited that holistic interventions would demonstrate superior outcomes compared to conventional treatment approaches in terms of abstinence rates, psychological well-being, and social reintegration. Results revealed significant improvements across multiple domains, with holistic intervention groups showing 68% sustained abstinence at 12 months compared to 43% in control groups. Participants demonstrated enhanced quality of life scores, reduced psychological distress, and improved social functioning. Statistical analyses confirmed the significant relationship between comprehensive holistic interventions and positive rehabilitation outcomes. The study concludes that integrated holistic models addressing multiple dimensions of recovery substantially enhance treatment effectiveness, supporting their wider implementation in Indian addiction care facilities for improved patient outcomes and long-term recovery success.

Keywords: holistic intervention¹, addiction rehabilitation², well-being³, treatment outcomes⁴, recovery success⁵.

1. INTRODUCTION

Addiction to substances including alcohol, opioids, cannabis, and other psychoactive drugs constitutes a severe public health crisis in India, with approximately 16 crore individuals consuming alcohol and 3.1 crore people

suffering from cannabis use disorders according to national surveys (Ambekar et al., 2019). The conventional biomedical model of addiction treatment, which primarily focuses on detoxification and pharmacological interventions, has demonstrated limited long-term success rates, with relapse rates ranging between 40-60% within the first year post-treatment (Dhawan et al., 2017). This persistent challenge has prompted researchers and practitioners to explore comprehensive approaches that address the multifaceted nature of addiction. Holistic intervention models represent a paradigm shift in addiction treatment, recognizing that substance use disorders affect multiple dimensions of human functioning including physical health, psychological well-being, social relationships, and spiritual fulfillment (Galanter et al., 2013). These integrated approaches combine evidence-based medical treatment with psychotherapeutic interventions, nutritional support, physical fitness programs, mindfulness practices, vocational training, and family therapy to address the complete spectrum of factors contributing to addiction and recovery (Kelly & Hoepfner, 2015). The theoretical foundation of holistic models draws from biopsychosocial frameworks that conceptualize addiction as a complex interplay of biological vulnerabilities, psychological factors, and social-environmental influences (Engel, 1977).

In the Indian context, where cultural values, family dynamics, and social stigma significantly influence addiction trajectories and treatment outcomes, holistic approaches that incorporate culturally sensitive interventions hold particular promise (Benegal, 2005). Traditional healing practices, spiritual components, and family-centered interventions align well with Indian cultural contexts while complementing evidence-based Western therapeutic modalities (Prasad, 2009). Despite growing interest in holistic treatment models, empirical evidence regarding their effectiveness in Indian addiction care facilities remains limited, creating a critical knowledge gap that this research aims to address. The present study investigates the effectiveness of holistic intervention models implemented in addiction rehabilitation facilities across India, comparing outcomes with conventional treatment approaches. By examining multiple dimensions of recovery including abstinence rates, psychological well-being, physical health indicators, and social functioning, this research provides comprehensive evidence regarding the value of integrated treatment models. Understanding the effectiveness of holistic approaches has significant implications for policy development, resource allocation, and clinical practice in Indian addiction care settings, potentially informing the development of more effective, culturally appropriate treatment protocols that enhance long-term recovery outcomes for individuals struggling with substance use disorders.

2. LITERATURE REVIEW

The evolution of addiction treatment has witnessed a gradual shift from purely biomedical models toward more comprehensive, person-centered approaches that acknowledge the complex etiology of substance use disorders (McLellan et al., 2000). Early research by Miller and Rollnick (2012) established the importance of motivational enhancement and patient-centered care in addiction treatment, demonstrating that therapeutic relationships and intrinsic motivation significantly predict treatment outcomes. Their work laid foundational principles for holistic models that prioritize individual autonomy and comprehensive wellness rather than solely focusing on substance abstinence. Neurobiological research has revealed that addiction involves profound alterations in brain reward systems, decision-making processes, and stress regulation mechanisms, suggesting that effective interventions must address these neuroplastic changes through multiple therapeutic modalities (Volkow et al., 2016).

Complementing this biological understanding, psychological research has identified trauma, adverse childhood experiences, and co-occurring mental health disorders as significant risk factors requiring integrated treatment approaches (Khantzian, 1997). Studies by Brown et al. (2013) demonstrated that addressing underlying psychological issues through cognitive-behavioral therapy, trauma-informed care, and mindfulness-based interventions significantly enhances treatment retention and reduces relapse rates.

The social dimensions of addiction and recovery have been extensively documented, with research highlighting the critical role of social support networks, family involvement, and community integration in sustained recovery (Laudet & White, 2008). Social network analysis studies have shown that individuals with strong recovery-oriented social connections demonstrate substantially higher abstinence rates compared to those lacking supportive relationships (Best et al., 2016). This evidence has prompted the integration of family therapy, peer support programs, and community reintegration services into comprehensive treatment models. Physical health and wellness components have emerged as essential elements of holistic addiction treatment, with research demonstrating bidirectional relationships between physical fitness, nutritional status, and recovery outcomes (Lynch et al., 2010). Exercise interventions have been shown to reduce cravings, improve mood, and promote neuroplasticity that supports recovery processes (Weinstock et al., 2017). Similarly, nutritional rehabilitation addresses the metabolic and nutritional deficiencies common in substance use disorders, supporting both physical recovery and psychological well-being (Koob & Volkow, 2016).

Mindfulness-based interventions have gained substantial empirical support as effective components of addiction treatment, with research demonstrating their efficacy in reducing stress reactivity, enhancing emotional regulation, and preventing relapse (Bowen et al., 2014). Meta-analytic studies have confirmed moderate to large effect sizes for mindfulness interventions in addiction treatment contexts, particularly when integrated within comprehensive treatment programs (Li et al., 2017). The mechanisms underlying mindfulness benefits include increased awareness of craving experiences without automatic reactivity, enhanced cognitive control, and improved distress tolerance. In the Indian context, Benegal et al. (2019) conducted extensive research on culturally adapted interventions, demonstrating that treatments incorporating family involvement, spiritual elements, and culturally congruent therapeutic approaches achieve superior engagement and outcomes compared to standard Western models. Research by Mattoo et al. (2015) examined integrated treatment models in Indian settings, finding that comprehensive programs addressing psychosocial needs alongside medical treatment significantly improved retention and abstinence rates. Despite this growing body of evidence, systematic evaluations of fully integrated holistic models across multiple outcome domains remain limited in Indian addiction care research.

International studies have provided evidence for the effectiveness of holistic treatment approaches. Finney and Moos (2002) found that treatment programs offering comprehensive services addressing multiple life domains achieved better 2-year outcomes than programs focusing solely on substance use. More recently, Moos and Moos (2006) demonstrated that the quality and comprehensiveness of treatment services predicted long-term recovery trajectories, independent of patient characteristics. These findings support the hypothesis that addressing the full spectrum of biopsychosocial factors through integrated interventions optimizes treatment effectiveness and promotes sustained recovery across diverse populations and settings.

3. OBJECTIVES

1. To assess and compare the abstinence rates and relapse patterns between participants receiving holistic intervention models versus conventional treatment approaches in addiction rehabilitation facilities over a 12-month period.
2. To evaluate the impact of holistic interventions on psychological well-being indicators including depression, anxiety, stress levels, and overall quality of life among individuals undergoing addiction treatment.
3. To examine the effectiveness of holistic intervention models in improving social functioning, family relationships, and community reintegration outcomes for individuals in addiction recovery programs.
4. To analyze the relationship between specific components of holistic interventions (psychological therapy, physical wellness, nutritional support, mindfulness practices, vocational training) and overall rehabilitation success rates in addiction care facilities.

4. METHODOLOGY

This study employed a quasi-experimental research design with a comparative approach to evaluate the effectiveness of holistic intervention models in addiction rehabilitation facilities. The research was conducted across five purposively selected rehabilitation centers in India, including three facilities implementing comprehensive holistic intervention programs and two centers utilizing conventional treatment approaches serving as comparison groups. The study received ethical approval from institutional review boards, and all participants provided informed consent after receiving detailed information about research procedures, potential risks, and benefits. The sample comprised 250 participants diagnosed with substance use disorders according to ICD-10 criteria, recruited between January 2023 and January 2024. Inclusion criteria specified individuals aged 18-55 years, with primary diagnoses of alcohol, opioid, or cannabis use disorders, minimum 30 days in treatment, and willingness to participate in the 12-month follow-up protocol. Exclusion criteria included severe cognitive impairment, acute psychiatric conditions requiring hospitalization, and medical conditions preventing participation in physical wellness components. Participants were allocated to holistic intervention groups (n=150) or conventional treatment groups (n=100) based on the treatment model of their enrolled facility, with baseline assessments confirming group comparability on demographic and clinical characteristics.

The holistic intervention model integrated multiple evidence-based components delivered over a minimum 90-day residential treatment period followed by aftercare support. Core components included individual cognitive-behavioral therapy (two sessions weekly), group therapy (three sessions weekly), family therapy (bi-weekly sessions), mindfulness meditation training (daily 45-minute sessions), structured physical exercise programs (five days weekly), nutritional counseling and meal planning, yoga and relaxation techniques, vocational skills training, and continuing care planning. The conventional treatment approach consisted of medical detoxification, pharmacological management, basic counseling (one session weekly), and psychoeducation groups, representing standard care practices in many Indian facilities. Data collection employed standardized assessment instruments administered at baseline, 3 months, 6 months, and 12 months. The Addiction Severity

Index measured substance use patterns and related problems across seven domains. The Depression Anxiety Stress Scale-21 (DASS-21) assessed psychological distress. The World Health Organization Quality of Life-BREF instrument evaluated quality of life across physical, psychological, social, and environmental domains. The Social Functioning Questionnaire measured social role performance and relationships. Biological verification of abstinence utilized random urine drug screening throughout the follow-up period. Trained research assistants conducted all assessments following standardized protocols to ensure data reliability.

Statistical analyses utilized SPSS version 26.0, employing chi-square tests for categorical variables, independent t-tests for continuous variables between groups, repeated measures ANOVA for within-group changes over time, and multiple regression analyses to identify predictors of treatment outcomes. Effect sizes were calculated using Cohen's d for continuous measures and odds ratios for categorical outcomes. Statistical significance was set at $p < 0.05$, with Bonferroni corrections applied for multiple comparisons. Missing data were handled using multiple imputation techniques. The analytical approach enabled comprehensive evaluation of holistic intervention effectiveness across multiple outcome domains while controlling for potential confounding variables including baseline severity, demographic characteristics, and treatment adherence rates.

5. RESULTS

Table 1: Baseline Demographic and Clinical Characteristics of Participants

Characteristic	Holistic Intervention (n=150)	Conventional Treatment (n=100)	p-value
Mean Age (years)	34.6 ± 8.2	35.1 ± 7.9	0.623
Male Gender (%)	88.0%	86.0%	0.645
Primary Substance - Alcohol (%)	52.0%	54.0%	0.752
Primary Substance - Opioids (%)	28.0%	26.0%	0.724
Primary Substance - Cannabis (%)	20.0%	20.0%	1.000
Mean Duration of Use (years)	11.4 ± 6.3	10.8 ± 6.1	0.451
Previous Treatment Episodes	1.8 ± 1.2	1.9 ± 1.3	0.532
Employed at Baseline (%)	42.0%	40.0%	0.757

The baseline demographic and clinical characteristics presented in Table 1 demonstrate that participants in the holistic intervention and conventional treatment groups were statistically comparable across all measured variables, with no significant differences observed (all p-values > 0.05). The mean age of participants was approximately 35 years in both groups, with predominantly male representation consistent with epidemiological patterns of treatment-seeking in Indian addiction facilities. Alcohol constituted the primary substance for over half of participants in both groups, followed by opioids and cannabis in similar proportions. The average duration of substance use exceeded 10 years, indicating chronic addiction patterns, while previous treatment history averaging 1.8-1.9 episodes reflected the relapsing nature of substance use disorders. Employment rates

of approximately 40% at baseline highlighted the significant functional impairment associated with addiction. This baseline equivalence strengthens the validity of subsequent comparative analyses by confirming that observed differences in outcomes reflect treatment effects rather than pre-existing group differences in demographic or clinical characteristics.

Table 2: Abstinence Rates and Substance Use Outcomes Across Follow-up Period

Outcome Measure	Holistic Intervention (n=150)	Conventional Treatment (n=100)	Effect Size (OR)	p-value
Abstinence at 3 months (%)	82.0%	61.0%	2.91	<0.001
Abstinence at 6 months (%)	75.3%	52.0%	2.83	<0.001
Abstinence at 12 months (%)	68.0%	43.0%	2.82	<0.001
Days of Substance Use (12-month)	18.4 ± 32.1	47.6 ± 58.3	-	<0.001
Treatment Retention (90+ days) (%)	84.7%	67.0%	2.73	<0.001

Table 2 reveals substantial and statistically significant differences in abstinence outcomes between holistic intervention and conventional treatment groups across all follow-up timepoints. At 3-month assessment, holistic intervention participants achieved 82% abstinence compared to 61% in the conventional group, representing a nearly threefold increase in odds of abstinence (OR=2.91, p<0.001). This advantage persisted throughout the study period, with 68% of holistic intervention participants maintaining abstinence at 12 months versus 43% in the conventional group (OR=2.82, p<0.001). The pattern indicates that holistic approaches not only facilitate initial abstinence but also support sustained recovery over time. Mean days of substance use during the 12-month follow-up period was significantly lower in the holistic group (18.4 days) compared to conventional treatment (47.6 days, p<0.001), demonstrating reduced relapse severity even among those who experienced recurrence. Treatment retention rates exceeding 84% in holistic programs versus 67% in conventional approaches (p<0.001) suggest that comprehensive interventions enhance engagement and completion. These findings provide strong evidence that holistic intervention models substantially improve primary addiction treatment outcomes, supporting their effectiveness in promoting sustained recovery and reducing relapse patterns in Indian rehabilitation settings.

Table 3: Psychological Well-being Outcomes (DASS-21 Scores)

Domain	Baseline	3 Months	6 Months	12 Months	Within-Group Change (p-value)	Between-Group Effect Size (d)
Holistic Intervention - Depression	18.4±6.2	10.2±5.1	8.6±4.8	7.3±4.5	<0.001	0.89
Conventional Treatment -	18.8±6.4	14.6±5.9	13.2±6.1	11.8±5.7	<0.001	-

Depression						
Holistic Intervention - Anxiety	16.7±5.8	9.4±4.6	8.1±4.2	6.9±4.0	<0.001	0.94
Conventional Treatment - Anxiety	16.9±5.9	12.8±5.4	11.6±5.3	10.4±5.1	<0.001	-
Holistic Intervention - Stress	20.2±6.7	11.6±5.3	9.8±4.9	8.4±4.6	<0.001	0.87
Conventional Treatment - Stress	20.6±6.9	15.9±6.1	14.3±5.9	12.7±5.6	<0.001	-

Table 3 demonstrates significant improvements in psychological well-being across depression, anxiety, and stress domains for both treatment groups, with holistic interventions producing substantially greater reductions in psychological distress. Participants receiving holistic interventions experienced a 60% reduction in depression scores from baseline to 12 months (18.4 to 7.3), compared to 37% reduction in conventional treatment groups (18.8 to 11.8). The between-group effect size of $d=0.89$ indicates a large clinical effect favoring holistic approaches. Similarly, anxiety scores decreased by 59% in holistic intervention participants versus 38% in conventional treatment, with a large effect size ($d=0.94$) confirming superior outcomes. Stress reductions followed comparable patterns, with holistic interventions achieving 58% improvement compared to 38% in conventional treatment ($d=0.87$). These large effect sizes across all psychological domains indicate that holistic models incorporating mindfulness practices, cognitive-behavioral therapy, physical exercise, and comprehensive support services more effectively address the psychological distress underlying and resulting from addiction. The substantial improvements in mental health indicators suggest that holistic approaches facilitate psychological healing essential for sustained recovery, addressing not merely substance use symptoms but the fundamental psychological factors maintaining addictive behaviors in Indian treatment populations.

Table 4: Quality of Life Outcomes (WHOQOL-BREF Scores)

Domain	Group	Baseline	12 Months	Change	p-value (within)	p-value (between)
Physical Health	Holistic	42.6±8.3	68.4±7.9	+25.8	<0.001	<0.001
Physical Health	Conventional	41.9±8.6	56.2±9.4	+14.3	<0.001	-
Psychological	Holistic	38.7±9.2	66.9±8.6	+28.2	<0.001	<0.001
Psychological	Conventional	39.1±9.4	52.3±10.2	+13.2	<0.001	-
Social Relations	Holistic	35.4±10.1	64.7±9.3	+29.3	<0.001	<0.001
Social Relations	Conventional	36.2±10.3	49.8±11.6	+13.6	<0.001	-
Environment	Holistic	44.8±8.7	67.2±8.2	+22.4	<0.001	<0.001
Environment	Conventional	45.1±8.9	57.6±9.8	+12.5	<0.001	-

The quality of life outcomes presented in Table 4 reveal that holistic interventions produced substantially greater improvements across all four WHOQOL-BREF domains compared to conventional treatment approaches. Physical health quality of life increased by 25.8 points in the holistic group versus 14.3 points in conventional treatment (between-group $p < 0.001$), reflecting the benefits of integrated physical wellness components including exercise programs, nutritional rehabilitation, and yoga practices. Psychological quality of life demonstrated the largest improvement differential, with holistic participants gaining 28.2 points compared to 13.2 points in conventional treatment, highlighting the effectiveness of comprehensive mental health interventions. Social relations quality of life showed particularly impressive gains of 29.3 points in holistic groups versus 13.6 points conventionally, attributable to family therapy, peer support, and social skills training embedded in holistic models. Environmental quality of life, encompassing financial resources, safety, and opportunities, improved by 22.4 points with holistic interventions versus 12.5 points conventionally, likely reflecting vocational training and community reintegration support. These findings demonstrate that holistic models address the multidimensional impact of addiction on life quality, facilitating comprehensive recovery that extends beyond abstinence to encompass physical vitality, psychological wellness, social connection, and environmental mastery essential for meaningful, sustained recovery in the Indian context.

Table 5: Social Functioning and Reintegration Outcomes

Outcome Measure	Holistic Intervention	Conventional Treatment	Effect Size	p-value
Social Functioning Score (12-month)	16.8 ± 4.2	21.4 ± 5.6	0.93	<0.001
Family Relationship Quality (1-10 scale)	7.6 ± 1.8	5.9 ± 2.1	0.88	<0.001
Employment at 12 months (%)	68.0%	47.0%	2.39	<0.001
Participation in Social Activities (%)	72.7%	51.0%	2.55	<0.001
Active in Recovery Support Groups (%)	64.0%	38.0%	2.90	<0.001
Vocational Training Completion (%)	58.7%	24.0%	4.48	<0.001

Table 5 demonstrates that holistic intervention models achieved significantly superior outcomes across all social functioning and community reintegration indicators measured at 12-month follow-up. The Social Functioning Questionnaire scores, where lower scores indicate better functioning, averaged 16.8 in the holistic group compared to 21.4 in conventional treatment, representing a large effect size ($d=0.93$, $p < 0.001$) and confirming enhanced social role performance. Family relationship quality ratings were substantially higher among holistic intervention participants (7.6 vs. 5.9 on 10-point scale, $d=0.88$, $p < 0.001$), reflecting the benefits of systematic family therapy and communication skills training. Employment outcomes showed particularly striking differences, with 68% of holistic intervention participants employed at 12 months versus 47% in conventional treatment ($OR=2.39$, $p < 0.001$), demonstrating the practical value of vocational components. Participation in social activities (72.7% vs. 51%, $OR=2.55$) and active involvement in recovery support groups (64% vs. 38%, $OR=2.90$) were significantly higher in holistic groups, indicating better community integration and recovery capital development. Vocational training completion rates were nearly 2.5 times higher in holistic programs

(58.7% vs. 24%, OR=4.48, $p < 0.001$). These comprehensive social reintegration outcomes confirm that holistic models effectively address the social dimensions of recovery, facilitating the reconstruction of meaningful social roles, relationships, and community connections essential for sustained recovery and life satisfaction in Indian cultural contexts.

Table 6: Treatment Component Utilization and Satisfaction in Holistic Intervention Group

Component	Participation Rate (%)	Mean Sessions Attended	Satisfaction Rating (1-10)	Perceived Helpfulness (%)
Individual Therapy (CBT)	94.7%	18.6 ± 6.2	8.4 ± 1.3	91.3%
Group Therapy	96.0%	34.2 ± 8.7	8.1 ± 1.5	88.7%
Family Therapy	82.7%	8.4 ± 3.1	8.6 ± 1.4	86.0%
Mindfulness/Meditation	91.3%	68.3 ± 18.4	8.7 ± 1.2	89.3%
Physical Exercise Program	88.7%	52.6 ± 14.2	8.3 ± 1.4	84.7%
Nutritional Counseling	86.0%	6.2 ± 2.4	7.9 ± 1.6	78.0%
Yoga/Relaxation	89.3%	46.8 ± 15.6	8.5 ± 1.3	87.3%
Vocational Training	72.0%	22.4 ± 10.3	8.2 ± 1.5	82.7%

Table 6 provides detailed information regarding participant engagement with specific components of the holistic intervention model, revealing high participation rates and satisfaction across all treatment elements. Individual cognitive-behavioral therapy demonstrated excellent engagement with 94.7% participation and average attendance of 18.6 sessions, accompanied by high satisfaction ratings (8.4/10) and perceived helpfulness (91.3%). Group therapy achieved the highest participation rate at 96% with substantial session attendance (34.2 sessions), indicating strong acceptability. Family therapy, though showing somewhat lower participation at 82.7%, received the highest satisfaction rating (8.6/10), suggesting particularly strong value among those who engaged.

Mindfulness and meditation practices demonstrated impressive engagement with 91.3% participation and highest satisfaction scores (8.7/10), reflecting growing acceptance of these practices in Indian treatment contexts. Physical exercise programs engaged 88.7% of participants across an average of 52.6 sessions, with solid satisfaction ratings confirming the acceptability of physical wellness components. Yoga and relaxation techniques showed strong cultural fit with 89.3% participation and high satisfaction (8.5/10). Vocational training, while showing lower participation at 72%, still engaged a substantial proportion with good satisfaction ratings among participants. These patterns demonstrate that holistic intervention models successfully engage participants across diverse treatment components, with consistently high satisfaction and perceived helpfulness supporting the acceptability and feasibility of comprehensive integrated approaches in Indian addiction rehabilitation facilities.

6. CONCLUSION

This comprehensive evaluation provides robust evidence that holistic intervention models incorporating psychological, physical, social, and spiritual components substantially enhance addiction treatment effectiveness compared to conventional approaches in Indian rehabilitation facilities. The superior outcomes across abstinence maintenance, psychological well-being, quality of life, and social reintegration dimensions demonstrate that addressing the multifaceted nature of addiction through integrated interventions optimizes recovery success. The high participation rates and satisfaction with holistic intervention components confirm their acceptability and feasibility in Indian treatment contexts. These findings support the wider implementation of comprehensive holistic models as evidence-based best practice in Indian addiction care, with significant implications for treatment policy, resource allocation, and clinical practice. The substantial benefits demonstrated across multiple recovery domains justify the investment required for comprehensive program development and implementation, potentially improving outcomes for the millions of Indians affected by substance use disorders while reducing the substantial personal, family, and societal costs of addiction.

7. REFERENCES

- [1] Ambekar, A., Agrawal, A., Rao, R., Mishra, A. K., Khandelwal, S. K., & Chadda, R. K. (2019). Magnitude of substance use in India. Ministry of Social Justice and Empowerment, Government of India.
- [2] Benegal, V. (2005). India: Alcohol and public health. *Addiction*, 100(8), 1051-1056. <https://doi.org/10.1111/j.1360-0443.2005.01176.x>
- [3] Benegal, V., Chand, P. K., & Obot, I. S. (2019). Packages of care for alcohol use disorders in low- and middle-income countries. *PLoS Medicine*, 6(10), e1000170. <https://doi.org/10.1371/journal.pmed.1000170>
- [4] Best, D., Beckwith, M., Haslam, C., Haslam, S. A., Jetten, J., Mawson, E., & Lubman, D. I. (2016). Overcoming alcohol and other drug addiction as a process of social identity transition: The social identity model of recovery (SIMOR). *Addiction Research & Theory*, 24(2), 111-123. <https://doi.org/10.3109/16066359.2015.1075980>
- [5] Bowen, S., Witkiewitz, K., Clifasefi, S. L., Grow, J., Chawla, N., Hsu, S. H., ... & Larimer, M. E. (2014). Relative efficacy of mindfulness-based relapse prevention, standard relapse prevention, and treatment as usual for substance use disorders. *JAMA Psychiatry*, 71(5), 547-556. <https://doi.org/10.1001/jamapsychiatry.2013.4546>
- [6] Brown, P. J., Stout, R. L., & Mueller, T. (2013). Substance use disorder and posttraumatic stress disorder comorbidity: Addiction and psychiatric treatment rates. *Psychology of Addictive Behaviors*, 13(2), 115-122. <https://doi.org/10.1037/0893-164X.13.2.115>

- [7] Dhawan, A., Rao, R., & Ambekar, A. (2017). Treatment of substance use disorders in India: Current scenario and future directions. *Indian Journal of Psychiatry*, 59(1), 65-71. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_104_17
- [8] Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196(4286), 129-136. <https://doi.org/10.1126/science.847460>
- [9] Finney, J. W., & Moos, R. H. (2002). Psychosocial treatments for alcohol use disorders. In P. E. Nathan & J. M. Gorman (Eds.), *A guide to treatments that work* (2nd ed., pp. 157-168). Oxford University Press.
- [10] Galanter, M., Dermatis, H., Post, S., & Sampson, C. (2013). Spirituality-based recovery from drug addiction in the Twelve-Step fellowship of Narcotics Anonymous. *Journal of Addiction Medicine*, 7(3), 189-195. <https://doi.org/10.1097/ADM.0b013e31828a0265>
- [11] Kelly, J. F., & Hoepfner, B. (2015). A biaxial formulation of the recovery construct. *Addiction Research & Theory*, 23(1), 5-9. <https://doi.org/10.3109/16066359.2014.930132>
- [12] Khantzian, E. J. (1997). The self-medication hypothesis of substance use disorders: A reconsideration and recent applications. *Harvard Review of Psychiatry*, 4(5), 231-244. <https://doi.org/10.3109/10673229709030550>
- [13] Koob, G. F., & Volkow, N. D. (2016). Neurobiology of addiction: A neurocircuitry analysis. *The Lancet Psychiatry*, 3(8), 760-773. [https://doi.org/10.1016/S2215-0366\(16\)00104-8](https://doi.org/10.1016/S2215-0366(16)00104-8)
- [14] Laudet, A. B., & White, W. L. (2008). Recovery capital as prospective predictor of sustained recovery, life satisfaction, and stress among former poly-substance users. *Substance Use & Misuse*, 43(1), 27-54. <https://doi.org/10.1080/10826080701681473>
- [15] Li, W., Howard, M. O., Garland, E. L., McGovern, P., & Lazar, M. (2017). Mindfulness treatment for substance misuse: A systematic review and meta-analysis. *Journal of Substance Abuse Treatment*, 75, 62-96. <https://doi.org/10.1016/j.jsat.2017.01.008>
- [16] Lynch, W. J., Peterson, A. B., Sanchez, V., Abel, J., & Smith, M. A. (2010). Exercise as a novel treatment for drug addiction: A neurobiological and stage-dependent hypothesis. *Neuroscience & Biobehavioral Reviews*, 37(8), 1622-1644. <https://doi.org/10.1016/j.neubiorev.2013.06.011>
- [17] Mattoo, S. K., Sarkar, S., Gupta, S., Nebhinani, N., Parakh, P., & Basu, D. (2015). Stigma towards substance use: Comparing treatment seeking alcohol and opioid dependent men. *International Journal of Mental Health and Addiction*, 13(1), 73-81. <https://doi.org/10.1007/s11469-014-9509-8>
- [18] McLellan, A. T., Lewis, D. C., O'Brien, C. P., & Kleber, H. D. (2000). Drug dependence, a chronic medical illness: Implications for treatment, insurance, and outcomes evaluation. *JAMA*, 284(13), 1689-1695. <https://doi.org/10.1001/jama.284.13.1689>

- [19] Miller, W. R., & Rollnick, S. (2012). *Motivational interviewing: Helping people change* (3rd ed.). Guilford Press.
- [20] Moos, R. H., & Moos, B. S. (2006). Rates and predictors of relapse after natural and treated remission from alcohol use disorders. *Addiction*, 101(2), 212-222. <https://doi.org/10.1111/j.1360-0443.2006.01310.x>
- [21] Prasad, R. (2009). Alcohol use on the rise in India. *The Lancet*, 373(9657), 17-18. [https://doi.org/10.1016/S0140-6736\(08\)61939-X](https://doi.org/10.1016/S0140-6736(08)61939-X)
- [22] Volkow, N. D., Koob, G. F., & McLellan, A. T. (2016). Neurobiologic advances from the brain disease model of addiction. *New England Journal of Medicine*, 374(4), 363-371. <https://doi.org/10.1056/NEJMra1511480>
- [23] Weinstock, J., Farney, M. R., Elrod, N. M., Henderson, C. E., & Weiss, E. P. (2017). Exercise as an adjunctive treatment for substance use disorders: Rationale and intervention description. *Journal of Substance Abuse Treatment*, 72, 40-47. <https://doi.org/10.1016/j.jsat.2016.09.002>