

Occupational Challenges in Physicians with Substance Use Disorder: A Qualitative Study

Darshan Shadakshari¹ , Krishna Prasad Muliya¹ , Deepak Jayarajan¹ and Arun Kandasamy²

ABSTRACT

Background: Substance use disorders (SUDs) in physicians impact their professional responsibilities toward patients. Understanding the difficulties of physicians with SUDs would facilitate early identification and reduce the complications they face in various domains, particularly in settings where there are no physician-health care programs. In this background, we aimed to understand the challenges physicians with SUDs face at their workplace.

Methods: Qualitative in-depth interviews of 21 physicians receiving treatment from a tertiary care addiction medicine center for their SUD were conducted and, based on the transcripts from the interview after coding and recoding, through inductive content analysis, themes and subthemes were identified.

Results: The following occupational challenges were identified: direct consequences of the psychoactive effect of the substance, adverse effects on clinical care and service delivery, impairment in regularity and punctuality, changes in the physicians' behaviors, changes in the work environment and diverse responses of colleagues and the hospital administration

toward substance use-related actions, ethical issues at workplace, and effects on career growth.

Conclusions: SUDs in physicians have a significant impact on their functioning at work, affecting patient care, interpersonal relationships as well as career growth. Knowledge of occupational challenges among physicians with SUD will help us in understanding the severity of the problem.

Keywords: Occupational challenges, physicians, qualitative, substance use disorder

Key Messages: SUDs have significant impact on physicians' occupational functioning, including negative effects on patient care, disruption of the work environment, and ethical and legal issues. The responses of hospital administrators to SUDs in physicians vary and include inaction, inquiries and investigations, and referrals for treatment. Physicians' SUDs carry long-term consequences over their careers: frequent job changes, changes in planned specializations, and negative impacts on research and academic aspects are some consequences identified.

A physician's job is stressful as it involves long working hours, taking responsibility to care for sick individuals, and accepting the possibility of dire consequences resulting from clinical decisions.¹ In many instances, the stress can be an initiating or maintaining factor for substance use.² However, physician surveys and physician health programs have consistently observed that medical professionals have a prevalence of substance use disorders (SUDs) similar to the general population.³⁻⁶ Yet, SUDs have been one of the important causes of physician impairment along with depression, stress, and burnout.

Physicians' SUDs adversely affect their health, education, interpersonal relationships, career, and finances. They also negatively impact patient care, with potential legal consequences. Initially, the impairment is subtle and affects the interpersonal and social domains, but eventually, it impacts work directly.⁷ These impairments often lead to adverse patient outcomes.⁸

Talbott and Benson⁹ described various challenges at work, including abnormal behavior in hospitals, overprescription,

¹Dept. of Psychiatry, National Institute of Mental Health and Neurosciences, Bengaluru, Karnataka, India. ²Centre for Addiction Medicine, National Institute of Mental Health and Neurosciences, Bengaluru, Karnataka, India.

HOW TO CITE THIS ARTICLE: Shadakshari D, Muliya KP, Jayarajan D and Kandasamy A. Occupational Challenges in Physicians with Substance Use Disorder: A Qualitative Study. *Indian J Psychol Med.* 2022;44(3):253-258.

Address for correspondence: Krishna Prasad Muliya, Dept. of Psychiatry, National Institute of Mental Health and Neurosciences, Bengaluru, Karnataka 560029, India. E-mail: krishnadoc2004@gmail.com

Submitted: 18 Dec. 2020
Accepted: 09 May. 2021
Published Online: 12 Jul. 2021



Copyright © The Author(s) 2021

Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution- NonCommercial 4.0 License (<http://www.creativecommons.org/licenses/by-nc/4.0/>) which permits non-Commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the SAGE and Open Access pages (<https://us.sagepub.com/en-us/nam/open-access-at-sage>).

ACCESS THIS ARTICLE ONLINE
Website: journals.sagepub.com/home/szj
DOI: 10.1177/02537176211020520

decreasing quality of performance, unexplained leaves, and numerous job changes. Some of these findings were replicated in subsequent studies and highlighted in reviews.^{10–12} Sanctions from disciplinary or judiciary boards have affected both the prestige and the livelihood of physicians.¹³

A systematic review indicated that burnout rendered physicians vulnerable to multiple psychological problems, including sleep disturbances, anxiety, depression, and SUDs.¹⁴ Burnout was reported to be as high as 90% among physicians in a tertiary care hospital survey in India.¹⁵ Estimates of the prevalence of SUDs among medical students¹⁶ and resident doctors¹⁷ in India vary from 6% to 30%. Among the substances used as a primary substance of abuse by physicians who sought inpatient care for their substance use, 58% were prescription drugs.¹⁸ Overall, there is a paucity of literature on the burden of substance use among physicians in India, and the same has been discussed in a previous editorial¹⁹ and a letter to the editor.²⁰ There are no specific health care programs for this population. To design such programs, we need to understand specific challenges physicians face in the context of their lived experiences and needs. This study aimed to understand the occupational challenges faced by physicians with SUDs, using inductive content analysis of in-depth interviews of physicians.

Materials and Methods

This qualitative study was conducted among physicians who used the Centre for Addiction Medicine (CAM) services, National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, India, after the approval of the Institute Ethics Committee. Participants were recruited purposively after obtaining written informed consent during the period 2017–2019.

Clinically stable physicians (physician has been defined for the purpose of the study as any individual with at least an MBBS degree) who had registered with CAM either as inpatients or outpatients and with an ICD 10 diagnosis of mental and behavioral disorders due to the use of a psychoactive substance (referred to as SUD henceforth) were recruited purposively. Physicians with any severity of use and specialty were included

if they could provide a valid clinical interview. Physicians who sought treatment exclusively for tobacco dependence were excluded. The MINI 7.0.2 was used to assess for comorbidities. Physicians who had other mental health and physical comorbidities were not excluded. The first author conducted the in-depth qualitative interviews during the second and third year of MD psychiatry residency (trained by the other three authors who have been part of qualitative studies previously) either face to face (11 interviews) or through video calls (10 interviews) based on mutual convenience. The interviews were conducted in English or Kannada language.

The qualitative interviews consisted of four phases:

In phase 1, open-ended questions about the challenges faced at work because of substance use were used to elicit responses. Facilitating questions were used to encourage patients to provide as much information as possible. In phase 2, semidirective questions were used to obtain elaboration on each of the challenges detected in phase 1, using examples and illustrations. Discrepancies and contradictions were reflected. In phase 3, a preprepared list of occupational challenges derived from a literature search was used to enquire about issues not covered in the first two phases. Facilitation and seeking elaboration were used to expand on the responses. Anchoring points and probes for this phase were refined after consultation with three addiction psychiatry experts and three pilot interviews. The anchor points used in the interview are as follows:

- Impact on the regularity
- Changes in the routine pattern of work
- Interpersonal issues with colleagues, staff, and administration
- Discrimination by colleagues, staff, and administration
- Collusion and enabling in the job
- Effect of substance use by colleagues
- Change of type of jobs
- Change of stream of postgraduation
- Experience of withdrawal and overdose at work
- Worsening of personal care and behavior
- Patient and self-satisfaction

In phase 4, an enquiry was made regarding the reasons for initiation of

substance use, manner of procurement of substances, factors leading to the substance use, sources of substance, and issues related to the treatment of the substance use.

All the interviews were audiorecorded to avoid loss of data/recall bias. Inductive content analysis was done. The recorded interviews were initially transcribed and then coded manually. The first and corresponding authors did free listing and coding. Representative quotes were selected for each of these codes. Two investigators reviewed the quotes and codes independently to reduce bias. Themes and subthemes were generated and categorized.

Results

Sociodemographic Characteristics and Clinical Profile

Thirty physicians were approached for the qualitative interviews, among whom four refused consent, and interviews could not be completed for five due to logistic reasons. Twenty-one interviews were completed. A single interview was conducted with each participant, for an average duration of 48 minutes. Of the 21 physicians, 19 were male (90%), and 2 were female (10%). The mean age of the participants was 42 years (range: 24–58 years). Most of the participants were postgraduates—14 physicians (63%)—while the remaining seven had an MBBS degree (33%). Four participants were postgraduates in general medicine, three were postgraduates in anesthesia, while the others had specialized in general surgery, pulmonary medicine, ophthalmology, pediatrics, orthopedics, obstetrics and gynecology, and preventive and social medicine, respectively. Four participants were conducting major surgical procedures. At the time of the study, 17 participants were employed full time, three were working part-time, and one was not working.

The predominant substances used were prescription opioids in 14 physicians (66%), alcohol in five physicians (19%), and cannabis, benzodiazepine, and methylphenidate, in one physician each. Six physicians used more than one type of substance with dependence patterns. The mean (\pm SD) age of onset of

dependence was 26.1 (± 6.9) years, and the mean age of first treatment for SUD was 36.4 (± 6.5) years. The median number of lifetime hospitalizations related to SUD was 1. Family history of SUDs was noted in eight participants. Eleven physicians reported a history of substance-related overdose. By MINI, ten participants had a lifetime diagnosis of depressive disorder, three had bipolar affective disorder, and two had obsessive-compulsive disorder.

Occupational Challenges Faced Due to Substance Use

Major themes and subthemes about occupational challenges that emerged are listed and summarized in **Table 1**. Subthemes and illustrative quotes are provided in **Table S1**. **Figure 1** summarizes the themes and their relationship with each other.

1. Direct consequences of the psychoactive effect of substance: Acute or chronic use of substance either during intoxication or withdrawal state affected the optimum functioning of physicians. Physicians reported sedation, impairment in attention and coordination, physical symptoms like tremulousness and palpitation, and in some cases, cognitive disturbances leading to repetition of history taking and examination. Two of the physicians also reported being able to function better when on the substance.
2. Effect on clinical care and service delivery: SUD hindered the effective delivery of clinical care and services. Physicians reported difficulty in conducting procedures and errors in documentation and prescriptions. A few of them perceived a reduction in work efficacy, with breaches in protocol leading to suboptimal clinical care.
3. Impact on regularity and punctuality: Irregularities and lapses in timeliness at work, either due to effects of intoxication/ withdrawal or due to time spent in procuring substance, are described under this theme. Physicians reported missing appointments, arriving late or leaving early, and frequently taking breaks to use the substance.
4. Other behavioral changes at work: Apart from irregularity and poor

TABLE 1.

Themes and Subthemes of Occupational Challenges Faced due to Substance

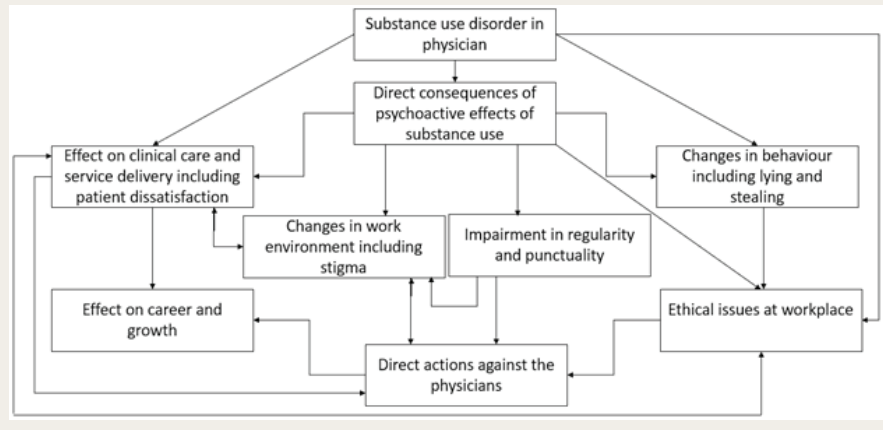
Theme	Subthemes (Number of Participants with the Subtheme)
1. Direct consequences of psychoactive effects of the substance	<ul style="list-style-type: none"> • Withdrawal (9) • Cognitive disturbances (8) • Attention and coordination (7) • Physical effects (6) • Sedation at work (4) • Psychotic symptoms (3) • Craving (3) • Effect on mental health (3) • Perceived benefits with drug use (2) • Slowing at work (1)
2. Effect on clinical care and service delivery	<ul style="list-style-type: none"> • Effect on procedures (12) • Prescription errors/illegibility (9) • Patient noticing changes in behavior/appearance (8) • Improper documentation/case notes (8) • Perceived lack of/improved effect on patient care (6) • Perceived reduction in efficiency/efficacy (5) • Avoiding/delaying seeing patients (3) • Patient dissatisfaction (3) • Suboptimal clinical care (2) • Breach of the protocol (1) • Delay in implementing national program in primary care (1)
3. Impairment in regularity and punctuality	<ul style="list-style-type: none"> • Absenteeism (16) • Frequent breaks (8) • Adjusting duty hours (4) • Leaving early (3) • Late to work (3) • Delaying work (3)
4. Other behavioral changes at work	<ul style="list-style-type: none"> • Anger toward the patient and patient family (15) • Lying and stealing (4) • Effect on professional attire (4) • Shaming staff (3) • Restlessness (2)
5. Work Environment	<ul style="list-style-type: none"> • Enabling behaviors from staff (14) • Delegating work to colleagues/to unqualified staff (9) • Challenges in managing duties (6) • Staff identifying changes in work behavior (5) • Reduced socialization (4) • Lack of trust from administration (3) • Warnings from colleagues/authority/superior (3) • Change in type of job (3) • Stigma and discrimination (3) • Lack of coordination with staff/colleagues (2) • Expectation of support from administration (2) • Perceived humiliation/harassment (1) • Change of attitude of the staff (1) • Breaching professional boundaries (1) • Effect on workplace dynamics politics (1)
6. Direct action against physicians	<ul style="list-style-type: none"> • Official complaints (4) • Other negative consequences (5) • Warning (3) • Investigation and inquiry (3) • Inaction by staff (3) • Other supports from administration (3) • Referral by the employer (1) • Communication among hospitals (1)
7. Ethical issues at the workplace	<ul style="list-style-type: none"> • Stealing from pharmacy/hospital (7) • Prescription related issues—dummy or self-prescription (7) • Working under intoxication (6) • Forging attendance (1) • Violation of professional etiquette (1)

(Table 1 continued)

Theme	Subthemes (Number of Participants with the Subtheme)
8. Effect on career and growth	<ul style="list-style-type: none"> • Frequent job changes (9) • Change in career trajectory (7) • Effect on reputation and finance (4) • Effect on academics/research work (4) • Missed opportunities (3) • Disjointed work history/Gap (2) • Effect on administrative work (1)

FIGURE 1.

Themes and Possible Interrelationships



punctuality, changes in a few other behaviors ascribed to substance use are described under this theme. They included displaying anger toward patients and their families and staff, dressing inappropriately for work, and frequent lying and stealing.

5. Changes in the work environment: This theme included reciprocal interactions between the physicians using substances and their work environments. Physicians reported changes in workplace dynamics, facing stigma, perceived humiliation, changes in the attitude of staff, difficulty in coordinating with colleagues, reduction in interactions with colleagues, lack of trust of administrators in them, and instances of delegating work to unqualified staff or colleagues.
6. Direct action against physicians: The system's—which mainly included the administration, superiors at work, and colleagues—responses to being made aware of the substance use in the physician varied and are listed under this theme. They included physicians being referred to treatment, warned, investigated, and completely being ignored by the staff.

7. Ethical issues at the workplace: Apart from the duty owed to self and the patient, a physician is bound to additional ethical responsibilities, which would often be impacted, as reported during the interviews. Physicians reported stealing from the pharmacy, writing prescriptions under false patient names (dummy prescriptions), forging attendance, and inability in maintaining professional etiquette.
8. Effect on career growth: During the interview, physicians reported that their substance use impacted their careers and education, ranging from a change in the department to some instances of change in specialty itself. Many physicians reported changing jobs frequently therefore. Three of the physicians reported refusing promotions at work to maintain substance use.

Discussion

This is the first study from India (and possibly Asia) detailing occupational challenges in physicians with SUDs through in-depth interviews. There are no structured health programs exclusively for physicians in many developing countries, including India. Therefore,

understanding the lived experience of occupational challenges is essential to plan screening tools and interventions. Most previous studies from India have either been prevalence studies, mainly in medical students, or review articles and only mention the potential implications of SUD on work.

We were able to elicit several occupational challenges, including the impact on clinical care and potential career, ethical and legal implications, and adverse work environments. The participants reported various psychoactive effects of substances—including cognitive disturbances, sedation, and slowing at work—and physical effects like fatigue and weakness. Poor physical condition, speech pattern changes, unexplained tremors, dizziness, and frequent sore throats and colds have been listed elsewhere as physical sequelae of substance use.^{3,21} All these effects would potentiate the difficulties we discussed in other themes. For example, cognitive impairment can contribute to impaired judgment and adversely impact clinical care provided to patients and can also directly lead to work impairment.²² Hence, specific screening for cognitive impairment during the initial assessment of physicians with SUD is necessary.

Punctuality and regularity were adversely affected in our population: frequent absenteeism, frequent breaks, coming to work late, and leaving work early were reported. This led to the cancellation of appointments and increased patient dissatisfaction. Irregularity worsened relationships with colleagues due to the increased burden they had to shoulder. When hospital administration became aware of such issues, physicians were warned to maintain punctuality. Previous reviews on impaired health care professionals also reported frequent unexplained absenteeism, missing appointments, disorganization in the schedule, missing deadlines, and consistently arriving late.^{3,21}

Three anesthetists who were participants in the current study reported taking frequent breaks at work. However, according to a previous review, anesthetists spent more time at work, volunteered for extra calls, and refused relief for food, to procure the substance.²³ The possible reasons for this difference could be that hospitals were the

primary sources of drugs in their setting, whereas, in Indian settings, prescription drugs could be sourced from medical representatives, pharmacies, and wholesale retailers too.

Our study participants reported difficulties in providing effective clinical care: they included medical and procedural errors, poor documentation, and prescription errors, which have been previously reported as well.^{3,9} A prevalence study also noted that physicians with alcohol abuse or dependence were more likely to report a recent medical error in the previous three months.²⁴ Such errors can lead to medicolegal actions and affect one's reputation and financial status.²⁵ Improper documentation also increases the risk that patients may suffer unnecessary repetitions of investigations, prolonged hospitalizations, and potentially inadequate care.²⁶ Improper documentation and prescription error would be considered violations of regulations and professional misconduct by regulatory bodies such as the Indian Medical Council²⁷. Robust mechanisms to audit documentation and prescriptions—which also aid in screening for instances of physician impairment, including substance use—are needed. An NHS survey of 1,794 physicians reported irritability with patients and colleagues and reduced standard of care, which our participants also experienced.¹² Inappropriate behavior and sexual promiscuity were described in previous studies,^{3,21} but this theme was not elicited in our study, perhaps because the interviews focused on workplace behaviors and this was not specifically probed. Financial corruption was also not described by the participants in our study.

Colleagues or administration responded to physicians' substance use by enabling it, remaining uninvolved, or initiating investigations and job terminations. The staff's enabling behavior included providing the substance, covering for physicians during their absences, or simply not confronting or reporting the use of the substances by the physician. For a few of our participants, colleagues did not report their substance use to the authority even in situations requiring mandatory reporting. One previous review called this a "conspiracy of silence" wherein medical professionals ignored SUD in their

colleagues until late in the disease's course, when punitive action would be taken.⁹ A national survey among physicians in the United States reported that most of them supported the professional commitment to report SUD in their colleagues; however, when faced with this situation in practice, 33% of those with knowledge of colleagues' SUD in the past did not report to the relevant authority,²⁸ despite the American code of medical ethics obligating the reporting of physicians with impairment. As in previous literature, participants in our study perceived stigma or inferred it directly from their colleagues' behavior.⁹ Two of our participants suggested that awareness programs among administrators and colleagues will help in addressing stigma. A supportive environment where the systemic response to the physician's SUD facilitates remedy, rather than initiating a punitive action by default, might help limit stigma.

Drug diversion, either with a "dummy" prescription or stealing, was reported in our study. Self-prescription was also noted in a retrospective study of 144 physicians.⁴ Drug diversion by other health care professionals such as nursing staff and pharmacists has also been documented previously.²⁹ There is no mention regarding self-prescription in the Medical Council of India (MCI)—now called the National Medical Council (NMC), code of conduct and ethics.²⁷ However, in various states of the USA, it is considered a violation of medical ethics. Similar modifications in the regulation of conduct and ethics by the NMC may be necessary to reduce self-prescription in India.

Frequent change in jobs, interrupted work history, and change in career trajectory were common themes described in our study, similar to literature from developed countries.^{4,9} Four of our participants reported a delay in obtaining postgraduation seats. Most medical graduates in India strive to get postgraduate degrees, and not obtaining one could also be a significant source of stress.³⁰ A previous review has also reported that lack of punctuality—unexplained absenteeism and tardiness—leads to low patient satisfaction and poor relationships with administration and colleagues.⁹ Routine screening for substance use can facilitate earlier interventions for doctors

struggling with some of these consequences of substance use.

Comprehensive assessment of these challenges will provide a background for intervention in physicians for their holistic recovery. Physician health programs address these in different parts of the world—United States,³¹ Canada,³² Australia,³³ and United Kingdom.³⁴ The programs include identification, assessment, treatment, and re-entry into practice with close monitoring and contingency plans in case of relapse.³⁵ Positive outcomes have been reported in these programs, with up to 78% returning to work and 65% completing treatment contracts at the end of five years.³⁶

Strengths of our study include the use of in-depth interviews that document physicians' lived experiences, investigator triangulation through independent coding of the transcripts, the inclusion of physicians purposively sampled from different specialties and settings, and the inclusion of physicians with varying severity of use. The lack of negative consequences of answering these interviews truthfully could have placed participants at ease and increased the credibility of their self-reports.

A few limitations are the lack of subsequent respondent validation of the challenges and the lack of key informant interviews or focused group discussions of mental health professionals/addiction specialists, which may have provided additional perspectives. Additionally, triangulation would have been enhanced by employer interviews and views of family members. Though representative of the skewed treatment-seeking gender ratio, the small number of female physicians and nonrepresentation of persons with other self-identified genders were insufficient to draw substantive inferences about gender perspectives.

Conclusions

There is a significant impact on the occupational functioning of physicians with SUD, including the effect on patient care, disruption of the work environment, ethical and legal issues, and career changes. Knowing the occupational challenges in physicians with SUD will help us understand the severity of the problem. It will also help in devising physician-specific interventions so that we can work toward a holistic recovery.

Currently, there are no specific health programs for impaired physicians in India. It is of immediate requirement, considering its impact on patient care and efficacy demonstrated in many developed countries.^{10,36} Health care programs could additionally provide epidemiological data about the burden of SUD in physicians. Further research into the adaptation of structured assessment tools, identifying at-risk behavior, and the other stakeholders' perspective is required.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Supplemental Material

Supplemental material for this article is available online.

ORCID iDs

Darshan Shadakshari  <https://orcid.org/0000-0002-6468-3758>

Krishna Prasad Muliyala  <https://orcid.org/0000-0002-2580-9581>

References

- West CP, Dyrbye LN, and Shanafelt TD. Physician burnout: contributors, consequences and solutions. *J Intern Med* 2018; 283(6): 516–529.
- Merlo LJ, Trejo-Lopez J, Conwell T, et al. Patterns of substance use initiation among healthcare professionals in recovery. *Am J Addict* 2013; 22(6): 605–612.
- Baldisseri MR. Impaired healthcare professional. *Crit Care Med* 2007; 35 (Suppl 2):S106–116.
- Brooke D, Edwards G, and Taylor C. Addiction as an occupational hazard: 144 doctors with drug and alcohol problems. *Br J Addict* 1991; 86(8): 1011–1016.
- Flaherty JA and Richman JA. Substance use and addiction among medical students, residents, and physicians. *Psychiatr Clin North Am* 1993; 16(1): 189–197.
- Hughes PH, Brandenburg N, Baldwin DC, et al. Prevalence of substance use among US physicians. *JAMA J Am Med Assoc* 1992; 267(17): 2333–2339.
- Miller SC, Fiellin DA, Rosenthal RN, et al. *The ASAM principles of addiction medicine*. Netherlands: Wolters Kluwer, 2018. <http://ovid.com/site/catalog/books/6156.jsp>
- Patel RS, Bachu R, Adikey A, et al. Factors related to physician burnout and its consequences: a review. *Behav Sci (Basel)* 2018; 8(11): 98.
- Talbott GD and Benson EB. Impaired physicians. The dilemma of identification. *Postgrad Med* 1980; 68(6): 56–64.
- Marshall EJ. Doctors' health and fitness to practise: treating addicted doctors. *Occup Med (Chic Ill)* 2008; 58(5): 334–340.
- Wilson A, Rosen A, Randal P, et al. Psychiatrically impaired medical practitioners: an overview with special reference to impaired psychiatrists. *Australas Psychiatry* 2009; 17(1): 6–10.
- Taylor C, Graham J, Potts H, et al. Impact of hospital consultants' poor mental health on patient care. *Br J Psychiatry* 2007; 190(3): 268–269.
- Berge KH, Seppala MD, and Schipper AM. Chemical dependency and the physician. *Mayo Clin Proc* 2009; 84(7): 625–631.
- Kesarwani V, Husaain Z, and George J. Prevalence and factors associated with burnout among healthcare professionals in India: a systematic review and meta-analysis. *Indian J Psychol Med* 2020; 42(4): 108–115.
- Grover S, Sahoo S, Bhalla A, et al. Psychological problems and burnout among medical professionals of a tertiary care hospital of North India: a cross-sectional study. *Indian J Psychiatry* 2018; 60(2): 175–188.
- Rai D, Gaete J, Girotra S, et al. Short report. *Natl Med J India* 2008; 21: 75–78.
- Sethi BB and Manchanda R. Drug abuse among resident doctors. *Acta Psychiatr Scand* 1980; 62(5): 447–455.
- Kandasamy A, Aneelraj D, Jadhav P, et al. Pattern & profile of substance use disorder (SUD) in physicians. *Indian J Med Res* 2015; 142(3): 344–345.
- Seshadri S. Substance abuse among medical students and doctors: a call for action. *Natl Med J India*; 21(2): 57–59.
- Bhan A. Substance abuse among medical professionals: a way of coping with job dissatisfaction and adverse work environments. *Indian J Med Sci* 2009; 63(7): 308–309.
- O'Connor PG and Spickard A. Physician impairment by substance abuse. *Med Clin North Am* 1997; 81(4): 1037–1052.
- Harrison J. Doctors' health and fitness to practise: the need for a bespoke model of assessment. *Occup Med (Chic Ill)* 2008; 58(5): 323–327.
- Bryson EO and Silverstein JH. Addiction and substance abuse in anesthesiology. *Anesthesiology* 2008; 109(5): 905–917.
- Oreskovich MR, Shanafelt T, Dyrbye LN, et al. The prevalence of substance use disorders in American physicians. *Am J Addict* 2015; 24(1): 30–38.
- Agrawal A. Medical negligence: Indian legal perspective. *Ann Indian Acad Neurol* 2016; 19(suppl 1): S9–S14.
- Mathioudakis A, Rousalova I, Gagnat AA, et al. How to keep good clinical records. *Breathe* 2016; 12(4): 369–373.
- Medical Council of India. Professional conduct, etiquette and ethics. 2002; 2002: 19.
- DesRoches CM, Rao SR, Fromson JA, et al. Physicians' perceptions, preparedness for reporting, and experiences related to impaired and incompetent colleagues. *JAMA* 2010; 304(2): 187–193.
- Berge KH, Dillon KR, Sikkink KM, et al. Diversion of drugs within health care facilities, a multiple-victim crime: patterns of diversion, scope, consequences, detection, and prevention. *Mayo Clin Proc* 2012; 87(7): 674–682.
- Mata DA, Ramos MA, Bansal N, et al. Prevalence of depression and depressive symptoms among resident physicians a systematic review and meta-analysis. *JAMA—J Am Med Assoc* 2015; 314(22): 2373–2383.
- Dupont RL and Skipper GE. Six lessons from state physician health programs to promote long-term recovery. *J Psychoactive Drugs* 2012; 44(1): 72–78.
- Puddester DG. Canada responds: an explosion in doctors' health awareness, promotion and intervention. *Med J Aust* 2004; 181(7): 386–387.
- Wile C, Frei M, and Jenkins K. Doctors and medical students case managed by an Australian doctors health program: characteristics and outcomes. *Australas Psychiatry* 2011; 19(3): 202–205.
- Stephenson J. The practitioner health programme. *BMJ* 2009; 338: b979.
- Kenna GA and Lewis DC. Risk factors for alcohol and other drug use by healthcare professionals. *Subst Abuse Treat Prev Policy* 2008; 3: 3.
- McLellan AT, Skipper GS, Campbell M, et al. Five year outcomes in a cohort study of physicians treated for substance use disorders in the United States. *BMJ* 2008; 337: a2038.