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POSITION PAPER

Training in Substance-Related and Addictive Disorders, Part 2: Updated Curriculum Guidelines

David Crockford, MD, FRCPC[1]; Gilles Fleury, MD, FRCPC[2]; Robert Milin, MD, FRCPC[3]; Leslie Buckley, MD, FRCPC[4]; Dara Charney, MD, FRCPC[5]; Tony P George, MD, FRCPC[6]; Nady el-Guebaly, MD, FRCPC[7]

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Introduction

Training in the management of substance-related and addictive disorders in psychiatry has been disproportionately limited in psychiatric residency training programs, compared with other major psychiatric disorders. Few psychiatry residents received training in addictions unless elective experiences were pursued. Moreover, a lack of experienced faculty, negative attitudes toward addicted patients, lack of adequate curriculum and poorly defined educational goals and requirements have been identified as factors leading to the lack of training in substance-related and addictive disorders.[1,2] With the further recognition that treatment outcomes improve when patients with concurrent addiction and mental disorders receive integrated care, rather than separate treatment in a sequential or parallel manner,[3–8] it becomes increasingly evident that the knowledge, attitudes and diagnostic–management skills for all new psychiatrists will need to become more sophisticated in the area of substance-related and addictive disorders.

In 1997, the initial *Curriculum Guidelines for Residency Training of Psychiatrists in Substance-Related Disorders* was published by the Canadian Psychiatric Association (CPA) as a position paper.[9] The stated goals of those guidelines were as follows, to:

- improve the knowledge, skills, and attitudes of psychiatrists about substance-related disorders to a level comparable to other mental disorders;

[1] Associate Professor, Department of Psychiatry, University of Calgary, Foothills Medical Centre, Calgary, Alberta.

[2] Assistant Professor, Department of Psychiatry, University of Ottawa, Ottawa, Ontario; Education Director, Division of Addiction and Mental Health, Montfort Hospital, Ottawa, Ontario.

[3] Associate Professor, Department of Psychiatry, University of Ottawa, Ottawa, Ontario; Director, Adolescent Day Treatment Unit, Youth Psychiatry Program, Ottawa, Ontario; Head, Division of Addiction and Mental Health, Royal Ottawa Mental Health Centre, Ottawa, Ontario.

[4] Assistant Professor, Department of Psychiatry, University of Toronto, Toronto, Ontario; Director, Addiction Services, Toronto Western Hospital, Toronto, Ontario.

[5] Associate Chair and Associate Professor, Department of Psychiatry, McGill University, Montreal, Quebec; Director, McGill RUIS Addiction Program, Addictions Unit, McGill University Health Centre, Montreal, Quebec.

[6] Professor and Co-Director, Division of Brain and Therapeutics, Department of Psychiatry, University of Toronto, Toronto, Ontario; Chief, Schizophrenia Division, Medical Director, Complex Mental Illness Program, Centre for Addiction and Mental Health, Toronto, Ontario.

[7] Professor and Head, Addiction Division, Department of Psychiatry, University of Calgary, Calgary, Alberta; Consultant, Addiction Centre, Foothills Medical Centre, Calgary, Alberta.

- ensure better evaluation and treatment of alcohol and other substance abusers;
- foster recognition of the impact of comorbid substance abuse on the treatment and evolution of other physical and psychiatric conditions;
- prevent marginalization and excessive demedicalization of clinical services to substance abusers;
- ensure that psychiatrists develop an understanding of the spectrum of health care systems providing services to substance abusers; and
- foster advanced training and subspecialization of a greater number of psychiatrists to develop clinical services, teaching, and research in substance abuse.[p 1–2]

However, without these proposed guidelines[9] being incorporated into the Royal College of Physicians and Surgeons of Canada (RCPSC) Specialty Training Requirements (STR) in Psychiatry,[10] curriculum changes were left up to individual programs to voluntarily implement, and relatively little change occurred.

To attempt to begin to address the training deficiency in substance-related and addictive disorders, in 2007, the RCPSC released the new STR in Psychiatry[10] outlining more specific expectations in training for psychiatry residents. While the Objectives of Training (OTR) in Psychiatry mentions alcohol and other substance use disorders (SUDs), it does not currently include gambling disorder or conditions for further study (for example, Internet gaming disorder), which we, the authors of this position paper, would recommend including to reflect the changes in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), terminology and trends in addiction treatments. Proficiencies in substance-related and addictive disorders are currently part of the training requirements for all Canadian psychiatry residents who began their training as of July 1, 2009, to be realized during the five years of residency training, with no less than the equivalent of a one-month clinical experience evaluated separately from other rotations occurring sometime in the postgraduate years (PGYs) 2 to 5. Although it is unlikely that a one-month experience would fully allow the resident to realize the proficiencies expected, the one-month experience, coupled with seminars, should provide an adequate foundation for residents in addictions to be augmented by further training experiences and ongoing continuing medical education (CME) to meet the requirements.

The OTR–STR as they apply to training in substance-related and addictive disorders include the following:

1. Supervised experience in the treatment of patients with substance-related and addictive disorders in various settings. A learning portfolio or log should be maintained and reviewed by the program director. This experience must be undertaken as a discrete rotation of no less than one month or incorporated as a longitudinal experience (at any time during PGY-2 to -5) of no less than the equivalent of one month. This must be documented and evaluated separately from other rotations.
2. Availability of a selective rotation in substance-related and addictive disorders of no less than three months, but preferably six months, during senior psychiatric residency training (PGY-4 to -5), to develop advanced knowledge (definition in Table 1) in addiction psychiatry.
3. Proficient (definition in Table 1) clinical knowledge, skills and attitudes appropriate to their practice in substance-related and addictive disorders.
4. Function effectively as consultants, integrating all of the CanMEDS roles to provide optimal, ethical and patient-centred medical care by identifying and appropriately responding to those patients with addiction comorbidity.
5. Demonstrate introductory knowledge (definition in Table 1) in assessing suitability for prescribing and delivery of motivational interviewing (MI).

The curriculum in substance-related and addictive disorders requires the minimum of a one-month equivalent clinical rotation and seminars to address the clinical knowledge, skills and attitude requirements that would enable the general psychiatrist to be proficient in their management of patients with primary or concurrent addictions. Clinical rotations can be discrete one-month rotations, longitudinal experiences or a blended version of these two options, occurring any time in psychiatric residency training after the PGY-1 year. Based on program and resident-derived factors, each training program will need to determine the optimal positioning of the clinical rotation in addictions. The flexibility in the timing and duration of the clinical rotation, however, could lead to significant variability in the foundational knowledge and skills that each resident would possess at that time in their training, a factor that would need to be considered by program directors when establishing rotations. Junior residents may be more proficient in the medical management of intoxication and withdrawal states, but less proficient in assessment, diagnostic and psychotherapeutic practices for these chronic disorders, potentially limiting the impact of early addiction training experiences on future psychiatric practice. Positive experiences in earlier training,

Table 1 RCPSC knowledge and skills definitions[38]

Variable	Definition
Introductory knowledge	Able to recognize, identify, or describe principles.
Working knowledge	Able to demonstrate core aspects of psychiatry, such as basic interviewing, problem formulation and treatment. The resident can understand the scientific literature.
Proficient	Able to demonstrate working knowledge enhanced by a developmental, cultural, and lifespan perspective, allowing detailed interviewing and bio-psychosocial problem formulation with capacity to teach, consult, assess and manage referrals. The resident can critically review and apply the scientific literature relevant to this competency.
Advanced	Detailed and sophisticated understanding, which is multimodal and interdisciplinary, leading to advanced teaching and consultation on complex referrals. The resident has a detailed knowledge of, and is able to apply, the scientific literature, adapting and extrapolating as required.

though, may set the stage for psychiatry residents to seek out selective rotations in addiction psychiatry in their senior training years, helping to establish future leaders in addiction psychiatry. Senior residents may benefit more from addiction training experiences, given their greater exposure to psychotherapy training, enhanced assessment skills and likely better established future practice plans, allowing them to better focus on learning in areas most applicable to their future practices (for example, screening and brief intervention skills for consultation-liaison psychiatrists, MI and other engagement skills for inpatient psychiatrists, or use of evidence-based harm reduction approaches for assertive community treatment team psychiatrists working with chronic psychotic disorders), but residency training programs may have greater difficulty integrating these experiences in the senior years, owing to limited availability of concurrent psychiatric and addictive disorder training centres and limited access to primary addiction services. Longitudinal experiences may bridge this divide but also be difficult to ensure a consistent training experience involving addiction psychiatry role models and evidence-based practices.

To address the changes reflected in the RCPSC OTR–STR, a working group with national representation and expertise in addictions was sought to develop a position paper on education in addiction psychiatry and offer updated curriculum guidelines for psychiatric residency training in substance-related and addictive disorders. In the first of this two-part position paper,[11] key clinical aspects of addiction psychiatry were highlighted, with general recommendations for psychiatry education. The core goals and objectives of this, the second part of this position paper, are to review and describe clinical content, potential strategies to changing curriculum and the means to develop clinical experiences in addictions so that psychiatry training programs can meet the RCPSC OTR–STR requirements set out for addictions. The recommendations are based on the prior CPA position paper,[9] resource manuals,[12,13] book chapters,[14] practice guidelines,[15] research papers published on medical and postgraduate education in addictions[16–23] and major textbooks.[24–27] From this position paper, it is hoped that residency programs in Canada will be able to train general psychiatrists to be able to competently manage patients with concurrent or primary addictive disorders in psychiatric practice in an evidence-based fashion with appropriate optimism for improvement.

Recommendations

The section on detailed clinical content will delineate areas of knowledge to be covered in substance-related and addictive disorders involving substance effects, biopsychosocial-spiritual understanding of the SUDs and their overlap with major mental disorders, addiction epidemiology, assessment and diagnostic skills for substance-related and addictive disorders with concurrent disorders, recognition of stage of change, choice of most appropriate treatment setting, skills in treatment delivery, awareness of community resources, the role of the family in recovery and attitudinal components. The section on detailed seminar content will describe content and the means to develop a skill-based interactive curriculum and its potential timing or sequencing. The section on clinical experiences will describe potential options for programs to meet the required one-month clinical rotation experience in addictions, with the pros and cons of the potential approaches and potential administrative needs.

Detailed Clinical Content for Substance-Related and Addictive Disorders Curriculum

Canadian psychiatric residents are expected to develop proficient clinical knowledge, skills and attitudes

appropriate to their practice to assess, manage and, if necessary, appropriately refer patients who present with primary or comorbid substance-related and addictive disorders. Knowledge, skills and attitudes need to reflect appreciation of the continuum of use–involvement in substances and behaviours associated with substance-related and addictive disorders, ranging from abstinence and limited use to at-risk use, to the different severities of substance use–gambling disorders.

It is recommended that clinical knowledge, skills and attitudes in addiction and related disorders involve the following domains, and are further outlined in Table 2.

Substance Effects

Proficient knowledge of the mechanism of action for the primary substances encountered in clinical practice, including alcohol, nicotine–tobacco, caffeine, cannabis, sedative–hypnotics (benzodiazepines, barbiturates, *gamma*-hydroxybutyric acid), stimulants (cocaine, amphetamines, and so-called designer stimulants), opiates, *N*-methyl-D-aspartate antagonists (phencyclidine and ketamine), inhalants, steroids and hallucinogens (classical and designer hallucinogens). This would represent a foundation to understanding how addiction develops and the basis for different intoxication and (or) withdrawal syndromes.

Proficient knowledge of substance intoxication and (or) withdrawal syndromes enabling their identification and management, whether in an acute setting or in the community. This would require skills to complete a safety assessment for inpatient, compared with outpatient, withdrawal treatment, managing medications and motivational components.

Working knowledge of the effects of chronic substance use on the development and perpetuation of medical complications (for example, hepatitis and human immunodeficiency virus) and comorbid mental disorders.

Working knowledge of the similarities and differences between behavioural and substance-related addictions.

Developing a Biopsychosocial-spiritual Understanding of Substance-Related and Addictive Disorders and Their Overlap With Major Psychiatric Disorders

Proficient knowledge of the critical role of the brain's extended dopamine reward pathway as the key mediator of the neurobiological basis for how substance-related and addictive disorders develop incentive salience for future behaviour choice, compared with natural rewards, balanced with the understanding of other biopsychosocial-spiritual factors contributing to risk and resilience, including drug type, delivery method, dosing, age of exposure, genetics, underlying psychiatric disorders and personality traits, expectancies from use, environment, history of abuse or neglect, peer use, availability, cultural and (or) religious and (or) spiritual factors, and economics.

Working knowledge of how psychosocial-spiritual risk factors may contribute to the initial use of addictive substances and behaviours, as well as protective factors, but as involvement progresses to dependence, how, with chronic reinforcement, a more biological basis is established. This knowledge would help frame the basis for choosing different strategies to address the continuum of substance-related and addictive disorders from at-risk use to the most severe forms of addiction and to understand all the components to the recovery process.

Working knowledge of how common comorbid mental disorders have overlapping neurobiological and psychosocial-spiritual determinants contributing to the development and perpetuation of both disorders.

Addiction Epidemiology

Working knowledge of the prevalence of each of the substance-related and addictive disorders, with the differences between populations based on age, sex, location and ethnicity.

Proficient knowledge of the comorbidity with the spectrum of major mental (including mood, anxiety, psychotic, cognitive, sleep, attention-deficit hyperactivity, eating, personality and somatic and [or] pain) and medical disorders.

Working knowledge of developing trends in substance-related and addictive disorders related to availability, perception of harm, and other factors that promote and protect from their development.

Working knowledge of the different trajectories and predictors for the course of substance-related and addictive disorders. Understanding how access to evidence-based treatments can change outcomes and awareness of the phenomenon of natural recovery, to help build appropriate optimism for change.

Assessment and Diagnosis

Proficient knowledge and skills in the identification of substance-related and addictive disorders. This would include knowing how to elicit history indicative of substance-related and addictive disorders, awareness of typical signs and symptoms that would prompt more in-depth screening, and the importance of screening for tobacco use, prescription drugs, over-the-counter

medications, and behavioural addictions, in addition to alcohol and illicit drugs. Also, residents should know the diagnostic criteria for substance-related and addictive disorders (DSM-5), but also definitions of addiction as defined by national and international societies (for example, the American Society of Addiction Medicine and the American Academy of Addiction Psychiatry).

Working knowledge of the use of screening instruments for SUDs (for example, the Cut down, Annoyed, Guilty, Eye-opener [commonly referred to as CAGE] questionnaire,[28] the Alcohol Use Disorders Identification Test [commonly referred to as AUDIT][29] for alcohol; Drug Abuse Screening Test [commonly referred to as DAST][30] for drugs) and their minimum cut-off values. Introductory knowledge of other screening instrument, such as the Global Appraisal of Individual Needs Short Screener (commonly referred to as GAIN-SS)[31] and more comprehensive instruments to thoroughly evaluate the impact of addictive behaviours (for example, Addiction Severity Index).[32]

Proficient knowledge in the use of the Clinical Institute Withdrawal Assessment for Alcohol, Revised (CIWA-Ar).[33]

Working knowledge of the role of laboratory screening, urine drug screening and other forms of drug screening with their potential limitations.

Proficient knowledge and skills to reasonably differentiate substance-induced psychiatric symptoms from independent mental disorders and to understand their clinical relevance.

Working knowledge of common comorbid conditions when one disorder is identified (for example, problematic sexual behaviour with stimulant addictions; anxiety, depressive and sleep disorders with sedative–hypnotic dependence).

Stage of Change and Treatment Planning

Proficient knowledge of the different stages of change reflective of the transtheoretical model[34] and how it is assessed.

Proficient knowledge of how stage of change can evolve and may be different for each mental and (or) substance-related and addictive disorder.

Proficient knowledge and skills in how to change a treatment approach based on stage of change, with at least working knowledge (but preferably proficient knowledge and skills) of MI techniques to change addictive behaviours.

Proficient knowledge and skill in the use of specific brief interventions, with at least working knowledge (but preferably proficient knowledge and skills) in MI, cognitive-behavioural therapy (CBT) and (or) relapse prevention, and (or) 12-step facilitation.

Working knowledge of contingency management as a method to create short-term incentives toward drug use reduction and abstinence.

Working knowledge in determining appropriate addiction treatment as it relates to setting (for example, outpatient, residential and inpatient), minimum durations and types of providers.

Working knowledge of how to select best treatments and modify this based on response (for example, use of the American Society of Addiction Medicine Patient Placement Criteria [ASAM PPC-2R]).[35]

Working knowledge and skill in the use of pharmacotherapy for substance-related and addictive disorders, including those for alcohol withdrawal, opioid substitution, treatment of alcohol use disorder (for example, naltrexone, disulfiram and acamprosate) and nicotine use disorder (for example, nicotine replacement therapy, bupropion and varenicline) and tapering off of opioids and sedative–hypnotics. Proficient knowledge and skill in the use of pharmacotherapy and psychotherapy in the context of comorbid substance-related and addictive disorders with other mental disorders.

Community Resources

Working knowledge of mutual help (for example, Alcoholics Anonymous and Rational Recovery) and how to facilitate involvement in these recovery resources (for example, 12-step facilitation).

Working knowledge of the spectrum of other community resources available to treat or to help manage substance-related and addictive disorders particular to their community, including evidence-based harm reduction approaches, detoxification facilities, outpatient treatment options and residential treatment centres.

Role of Family and (or) Community

Working knowledge of the impact of substance-related and addictive disorders on the addicted person's family and community.

Working knowledge and skills to support and involve the person's family and community in the recovery process from psychoeducation to couples and (or) family therapy.

The knowledge and skills would aim to incorporate strategies to further tailor treatments with special populations (for example, Aboriginal peoples) as they

Table 2 Proposed stage-specific competencies in substance-related and addictive disorders

Variable	PGY-1	PGY-2 to -3	PGY-4 to 5[a]
Knowledge			
Substance effects	WK	Prof	Adv
Biopsychosocial understanding	WK	Prof	Adv
Epidemiology	Intro	WK	Prof and (or) Adv
Community resources	Intro	WK	Prof and (or) Adv
Skills			
Screening	WK	Prof	Adv
Assessment and diagnosis	WK	Prof	Adv
Management of intoxication and or withdrawal	WK	Prof	Adv
Patient placement	Intro	WK	Prof and (or) Adv
Concurrent disorder treatment	WK	Prof	Adv
Pharmacotherapy	Intro	WK	Prof and (or) Adv
Psychotherapy			
Brief interventions	WK	Prof	Adv
MI	Intro	WK	Prof and (or) Adv
CBT and (or) relapse prevention	Intro	WK	Prof and (or) Adv
TSF and contingency management	Intro	WK	Prof and (or) Adv
Family	Intro	WK	Prof and (or) Adv

[a] Psychiatry three- to six-month selective training and (or) fellowship training

Adv = advanced; Intro = introductory knowledge; Prof = proficient; TSF = 12-step facilitation; WK = working knowledge

apply to potential differences related to age, sex and ethnocultural factors.

Attitudes

Personal awareness of potential biases held toward patients with substance-related and addictive disorders, with development of empathy for their condition.

Development of appropriate optimism for change and improvement over time in people with substance-related and addictive disorders, while recognizing that addiction requires an approach reflective of a chronic disorder.

Seminar Organization for Substance-Related and Addictive Disorders Curriculum:

A skills-based curriculum that is interactive and experiential in nature should be emphasized to progressively increase knowledge, skills and attitudes toward patients along the continuum, from at-risk use to the different severities of substance use–gambling disorders. The curriculum would recognize the lifelong process of learning, building from medical school and reinforced through CME. The timing and duration of the substance-related and addictive disorders curriculum could be incorporated into current seminars or could stand alone, depending on the needs of each individual program and their available resources. Incorporating addictions curriculum into current seminars (an integrated format) may facilitate greater teaching and discussion around comorbidities, where both teaching staff and residents may enhance their knowledge and skill sets in addictions, but may limit their time available for discussion of specific evidence-based addiction practices and may come at the expense of consistency. Standalone seminars may better allow for in-depth discussion of addictions topics and be able to sequence education in addictions to better match trainees foundational knowledge, skills and attitudes as their training progresses, but potentially limit incorporation of practices with patients presenting with prominent psychiatric syndromes. It is suggested that the curriculum in PGY-1 or -2, a minimum of three hours of separate or the equivalent in integrated seminar time, be dedicated to foundational knowledge in addiction psychiatry and introduce brief interventions. In PGY-2 to -5, it is suggested that a minimum of six hours of separate or the equivalent in integrated seminar time be dedicated to advanced principles of addiction psychiatry. In PGY-2 to -5, occurring separately,

integrated into existing psychotherapy seminars, or part of the addictions lectures, it is suggested that an introductory seminar equivalent to a minimum of three hours be included introducing core concepts behind MI, relapse prevention, and 12-step facilitation that, ideally, incorporate case scenarios or real and (or) simulated patients for practice of techniques and feedback. More detailed descriptions of seminar content and CME are included in the Supplemental Materials section.

Supervised Clinical Experience Organization for Substance-Related and Addictive Disorders Curriculum

The mandatory one-month supervised clinical experience to meet the requirements for training in substance-related and addictive disorders could be met by an intensive one-month rotation, a longitudinal rotation or a blended and (or) time-limited rotation. Each would require at least one supervising psychiatrist with certification, training or adequate experience in addiction psychiatry or addiction medicine. Preferably rotation experiences would involve multiple treatment types and settings that are inclusive of diversity as it relates to sex, socioeconomic status and ethnicity. Ideally, rotations would provide opportunities that include both in- and outpatient settings, where structured outpatient experiences (for example, addiction day treatment settings and established outpatient clinics) should be emphasized to best impart appropriate optimism for change in patients with addictions and related disorders and followed longitudinally. Inpatient rotations would likely ensure patient contact, but could limit seeing how patients function longitudinally and may be prone to seeing the most recalcitrant (or so-called revolving-door) patients that could inadvertently promote a sense of therapeutic futility, turning residents away from treating this population.[2] Unstructured outpatient experiences can be prone to frequent patient nonattendance, again inadvertently making this less enticing to residents to seek as an area of future practice. A learning portfolio should be maintained by the resident, demonstrating an equivalent of 80 to 120 hours of direct and indirect patient-based time, describing skills developed involving patients across the lifespan, involving various mental health and addiction diagnoses to meet the RCPSC requirements. A greater duration (for example, three months) to the supervised clinical experience in addiction psychiatry should be encouraged, given that one month, although meeting RCPSC requirements, quite likely is inadequate to develop the proficiencies outlined in the OTR–STR. Each potential supervised clinical experience option has relative strengths and weaknesses. Descriptions of potential rotation structures are provided in our Supplemental Materials section.

In addition to how the addiction psychiatry experience is organized, it is recommended that trainees observe mutual help meetings (for example, Alcoholics Anonymous) as part of their one-month supervised clinical experience. They should visit and be aware of community resources available to patients with addictions, so that they can appropriately use these resources in the remainder of their residency training and future clinical practice. Most hospitals have open Alcoholics Anonymous or Narcotics Anonymous meetings on site, and attendance by trainees could be negotiated with the leaders of these meetings.

An elective in addiction psychiatry of at least three months, but preferably six months' duration, needs to be available for PGY-4 to -5 psychiatry residents. Not all programs may have this opportunity available locally. If a selective is not available for whatever reason then arrangements should be made with other programs to allow residents to take the selective at a different site. The selective rotation would be designed to help senior psychiatry residents further develop proficiency in the assessment and management of patients with primary and comorbid substance-related and addictive disorders; further modify physician attitudes toward addicted patients; and allow trainees to better develop appropriate skill sets to routinely and competently manage such patients in their practices after they graduate. A three- or six-month selective would more easily allow the attainment of proficiency in substance-related and addictive disorders set out in the OTR–STR, while a selective up to 12 months would allow for advanced skills to be developed, and potentially with adequate practice experience or fellowship training to meet addictions certification standards. A selective could also provide the opportunity to fully participate in an inpatient and (or) residential addiction treatment program, including follow-up and (or) aftercare. Programs with limited faculty with training in addiction psychiatry should prioritize selective training for identified interested residents in their program to help with faculty development.

Administration and Evaluation

With training in substance-related and addictive disorders being formalized within the RCPSC OTR–STR, all Canadian psychiatry residency training programs will need to appoint a training coordinator. Ideally, the appointed coordinator will be a psychiatrist certified in addiction medicine or addiction psychiatry,

have fellowship training in, or extensive practice experience involving, evidence-based addiction psychiatry and (or) medicine. The coordinator would be responsible for developing and (or) organizing the seminar content, as well as for organizing what model is to be used for the supervised clinical experience in substance-related and addictive disorders. Skilled psychiatry preceptors would need to be identified and (or) developed to supervise residents and provide the didactic teaching. Although supervised substance-related and addictive disorders training may be available from other specialties, such as family medicine or community health, the roles of these people would need to be supplementary, as supervision to meet RSCPC requirements needs to be primarily by a psychiatrist. Training of skilled faculty may well need to be a priority for those programs lacking available and skilled supervisors. Resident interest in addiction psychiatry should be sought and identified early by residency training program directors, with regular meetings scheduled with the appointed coordinator for substance-related and addictive disorders thereafter to help foster faculty growth and development. The appointed coordinators would also be responsible for developing a common evaluation form addressing the CanMEDS roles for all residents in the training program to document their meeting RSCPC requirements. A learning portfolio documenting the 80 to 120 hours of direct and indirect patient-based time in substance-related and addictive disorders would need to be reviewed by the coordinator in concert with the postgraduate training director. Affiliations with off-site residential, day treatment and outpatient substance-related and addictive disorders treatment programs may need to be established if there currently is a lack of on-site programs capable of providing the described structured addiction training experiences. If seminars in substance-related and addictive disorders are planned to be incorporated into existing seminars for other major psychiatric disorders where instruction is provided by psychiatrists without addiction psychiatry training backgrounds, a train-the-trainer program may need to be developed for those instructors.

Future Directions

Currently, fellowship opportunities in addiction psychiatry are available at some Canadian training sites. A potential pathway toward subspecialty status for addiction psychiatry in Canada at this time could be through initially acquiring diploma recognition by the RCPSC. It is hoped that the inclusion of formal training requirements in addictions and related disorders for psychiatry residency training programs will eventually lead to an expansion of psychiatrists with more extensive skill sets in addiction psychiatry and the push toward subspecialization.[36] Current training requirements for subspecialization are available in the United States via the Accreditation Council for Graduate Medical Education (ACGME), which could be applied to the Canadian context in the future.

For the new psychiatry subspecialties of child and adolescent psychiatry, geriatric psychiatry and forensic psychiatry, it is suggested that specific training content be developed in substance-related and addictive disorders for each of these three subspecialties to be incorporated into their fellowship year(s).

Currently, Canadian psychiatrists seeking validation for a specialized practice have availed themselves of numerous options. Subspecialty Board Certification in Addiction Psychiatry for holders of a US Board Certification in Psychiatry is valid for 10 years, subject to Maintenance of Competence activities, to be considered for renewal by examination on completion of an ACGME fellowship in addition psychiatry in the PGY-5 or later year. Applicants not meeting the aforementioned criteria have opted to meet the criteria for Diplomate status from the American Board of Addiction Medicine (DABAM), also valid for 10 years. Currently, two Canadian sites (Vancouver and Toronto) have training programs accredited by the DABAM. A third option has been to apply for an International Certification in Addiction Medicine sponsored by the International Society of Addiction Medicine and recognized by the Canadian Society of Addiction Medicine.[37] Internationally, the promotion of Addiction Medicine as a medical specialty is being actively pursued in the Scandinavian countries, as well as in Australia and New Zealand.

Given the scope of addiction problems in Canada across the lifespan, comorbidity with major mental disorders being the norm, and the lack of widespread availability of addiction providers, especially in mental health settings, the further development of psychiatric residency training in substance-related and addictive disorders needs to be a priority for training programs to improve Canadian psychiatric care. The new training requirements provide an opportunity for training programs to begin to address the often unmet needs of concurrent disorder patients, by enhancing the competencies of our future psychiatrists, and, it is hoped, these updated curriculum guidelines will facilitate their implementation.

Supplemental Materials

Detailed Seminar Organization for Substance-Related and Addictive Disorders Curriculum

Foundational Knowledge in Addiction Psychiatry and Introduction to Brief Interventions

In PGY-1 or -2, a minimum of three hours of separate or the equivalent in integrated seminar time dedicated to basic principles of addiction psychiatry as they pertain to the following: mechanism of action of substances of addiction liability; typical intoxication and (or) withdrawal syndromes; use of instruments to assess withdrawal (for example, CIWA-Ar); introduction to behavioural addictions and their similarities and (or) differences from substance addictions; biopsychosocial etiology of addiction; awareness of means to ask about, screen and identify problematic use and (or) addiction; other basic assessment skills (including diagnostic criteria and means to help differentiate substance-induced syndromes from underlying psychiatric disorders); awareness of low-risk drinking guidelines; introduction to the stages of change; and knowledge of brief interventions for addictions and related disorders. To provide a structure for performing a brief intervention, the FRAMES mnemonic (FRAMES: personalized Feedback, Responsibility, Advice to change, Menu of options, Empathy, and Self-efficacy) should be described, with the opportunity to practice the technique thereafter. The rationale for focusing on brief intervention skills in a foundational seminar is that they are known to be effective and are designed to be implemented by people with minimal to no addiction training.[39,40]

Advanced Knowledge and Skills in Addiction Psychiatry

In PGY-2 to -5, a minimum of six hours of separate, or the equivalent in integrated, seminar time dedicated to more advanced principles of addiction psychiatry as they pertain to the following: mechanism of action of addictive substances and behaviours, with the effects of these acutely and chronically on psychiatric status and cognitive functioning; further exploration of the biopsychosocial basis of addiction, linking the neurobiological effects of addictive substances and behaviours to specific brain regions and their functions, emphasizing the critical role of dopamine in the acquisition of addictive behaviour and other neurobiological mechanisms involved in relapse to psychosocial factors that further speak to risk and resilience; a review of the epidemiology of addiction and its overlap with the other mental disorders, emphasizing the continuum of use and (or) involvement from no use, non-problem use, at-risk use to substance use and (or) gambling disorders; understanding of different trajectories for the continuum of use and (or) involvement from the potential for natural recovery to the typical chronic, relapsing nature of addiction; specific means to identify and diagnose addiction and related disorders in psychiatric patients, and how to differentiate independent from addiction-induced symptoms; knowledge of specific instruments to screen for addiction and related disorders, with cut-off values indicative of further assessment and attention being required; the means to elicit and identify not only alcohol and illicit drug use but also prescription, over-the-counter, and tobacco use, and potential behavioural addictions; knowledge of urine drug testing, involving when to use this, duration of positive tests, and limitations to use; knowledge of stage of change and how to identify what stage a patient is in, to tailor treatment to meet their current needs; knowing when abstinence and harm reduction approaches are appropriate, and what evidence-based practices they include; knowledge of evidence-based psychotherapies for substance-related and addictive disorders, including brief interventions, MI, relapse prevention–CBT–behaviour therapy, contingency management, 12-step facilitation, case management, and family support; understanding the concept of recovery; knowledge of mutual support; knowledge of evidence-based pharmacotherapies for addictions, including those to facilitate acute and gradual withdrawal, smoking cessation, maintenance and (or) substitution, protracted withdrawal, cravings, and mental and (or) physical (for example, pain) comorbidity; how to assess for the most appropriate treatment setting for intoxication and (or) withdrawal syndromes, as well as initial and follow-up addiction treatment (for example, using the ASAM PPC-2R); the importance of involving family members to not only help further engage patients but also address the consequences that addiction has had on them, as well as the evidence behind behavioural couples counselling; and awareness of prevention strategies as they apply to themselves and colleagues reflecting models of physician health.

Substance-Related and Addictive Disorders Psychotherapies

In PGY-2 to -5, occurring separately, integrated into existing psychotherapy seminars, or as part of the addictions lectures, include an introductory seminar equivalent to a minimum of three hours, introducing core concepts behind MI, relapse prevention, and 12-step facilitation that, ideally, incorporate case scenarios or

real and (or) simulated patients for practice of techniques and feedback. Concepts inherent to MI involving ambivalence as being a normal process of change; the role of therapist as facilitator with the patient having innate ability to change; resistance as an indicator of needing to change therapeutic approach rather than emanating from static patient defences (for example, rolling with resistance); and how change is facilitated by encouraging the patient to discuss the pros and cons of the status quo, the pros and cons of change, their confidence to change and their plans to change, including specific associated techniques and timing of interventions. Relapse prevention would review means to bring up and address warning signs and triggers for use (for example, cravings, social pressures and high-risk situations), as well as how to develop a recovery network and coping skills to manage triggers and negative affect states. Twelve-step facilitation would discuss the steps typically used in Alcoholics Anonymous, focusing on the first three steps, and how to encourage involvement.

Continuing Medical Education

An addiction psychiatry focus, at least twice annually, available to residents at their training sites via the hospital or university rounds could not only reinforce content covered in seminars and clinical rotations but also emphasize the role of lifelong learning via CME in addictions practice. Access to courses and workshops with an addiction psychiatry focus should be prioritized by training programs, especially if resources are limited in substance-related and addictive disorders at that training site (for example, American Academy of Addiction Psychiatry Annual Review Course and MI workshops).

Detailed Supervised Clinical Experience Organization for Substance-Related and Addictive Disorders Curriculum

Intensive One-Month Substance-Related and Addictive Disorders Supervised Clinical Experience

Such a rotation may fit best in the mandatory PGY-2 six-month in- or outpatient general psychiatric training experiences, occurring at a concurrent disorder capable (the program's primary focus is on addictions, but is able to treat patients with stable comorbid mental disorders via on-site psychiatric care or available consultation with staff able to understand and identify signs of psychiatric disturbance) residential facility or an outpatient treatment facility with a structured day program, an in- or outpatient dual diagnosis–enhanced (program treats mental disorders and addictions in an integrated fashion with psychiatry present on-site and staff cross-trained to identify and treat concurrent disorders) addiction treatment program, or with the individual practice of a full-time addiction psychiatrist. This type of experience would allow for intensive, but brief, exposure to addiction treatment of various patients with addictions, but may not provide a long enough experience to see adequate change in individual patients, provide an adequate understanding of the long-term course and evolution of substance-related and addictive disorders, and potentially more positive outcomes with ongoing intervention.

Longitudinal Substance-Related and Addictive Disorders Supervised Clinical Experience Training would occur longitudinally at some point during PGY-2 to -5, but potentially during the entire final four years of psychiatric residency. The equivalent of an intensive one-month supervised clinical experience, as outlined above, must be obtained. This type of rotation would likely provide the greatest opportunity to see multiple patients with addictions and comorbidities, while potentially providing a greater variety of perspectives from different supervisors. The greatest strength may be that it would allow for residents to manage patients with addictions in various practice settings, particularly one they may work in after completing training, to best allow translation of their learning to practice. In addition, residents would have the opportunity to manage patients through various residential or day treatment programs and withdrawal treatment settings, observing the changes that take place in each and becoming more familiar with what the treatments can offer patients. Through longer-term observation residents may be able to better observe the impact of reducing substance use on concurrent mental disorder diagnoses. However, availability of supervision by psychiatrists with addictions training or experience may be difficult to arrange in this type of supervised clinical experience, potentially compromising mentorship or the reliable application of evidenced-based treatments. Continuity of care is also a potential dilemma within the longitudinal rotation, especially as residents change rotations. Patients may drop out or relapse when not having a consistent program to attend, and residents may not come to fully appreciate the long-term course and evolution of substance-related and addictive disorders.

Blended or Time-Limited, Longitudinal Substance-Related and Addictive Disorders Supervised Clinical Experience

In this model, residents would attend to patients with addictions at an inpatient, residential or structured outpatient addiction or dual diagnosis–capable and

(or) –enhanced program once a week for a full day during six months, once a week for a half day during 12 months, or a variant thereof (for example, four half days per week during three months). Such a model may best be scheduled during the mandatory PGY-2 six-month in- or outpatient general psychiatric training experience, or during the chronic care rotation in PGY-3 to -5. This model would most likely ensure supervision by psychiatrists who follow evidence-based addiction practices, and would allow for the involvement with patients during a somewhat longer time frame than an intensive one-month experience, allowing progression in stage of change to be potentially better observed and various practice skills used matching the progression in stage of change and treatment. As in the longitudinal clinical experience, residents would have an opportunity to learn about patient experiences in various treatment settings they may engage in during the rotation and observe changes in mood, anxiety and other concurrent mental disorders with reduced substance use. Because of close supervision from addiction psychiatrists, residents could assess and manage withdrawal from substances in stable patients, recommending and referring to inpatient withdrawal if needed or managing a low-risk outpatient withdrawal with supervision. However, this model affords less opportunity for the assessment and management of crises or relapses, including the management of acute intoxication and withdrawal syndromes. In addition, patients with chronic illnesses who may require a long period of alliance building would not be fully appreciated in the six-month setting.

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