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SPECIAL ARTICLE

Anesthesiology Resident Wellness Program at the University of Saskatchewan: curriculum content and delivery

Le programme en anesthésiologie pour le bien-être des résidents de l'Université de la Saskatchewan: contenu et exécution du curriculum

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Abstract *Resident and physician health are increasingly recognized by the Royal College of Physicians and Surgeons of Canada and its CanMEDS framework as integral to residency training in Canada. Resident stress, burnout, and depression also have implications for patient care. Although curricula have been advocated to promote resident wellness and resilience, no such published curricula exist to guide programs in addressing these needs. The purpose of this article is to describe the curriculum content and delivery of the Anesthesiology Residency Wellness Program (ARWP) at the University of Saskatchewan. The ARWP curriculum is comprised of four components: modular curriculum, peer support curriculum, self-directed learning activities, department wellness program. The program matrix illustrates the mission, target population, inputs, outputs, and outcomes of the ARWP. Content and suggestions for delivery of the eight curricular modules are detailed. The described ARWP is a novel innovation in Canadian postgraduate medical education. We believe this ARWP is the first comprehensive, formalized, actualized program in Canada. It also provides a guide and a helpful resource for further development of resident wellness programs by other disciplines in Canada and internationally.*

Résumé *La santé des résidents et des médecins est de plus en plus reconnue comme faisant partie intégrante de la résidence médicale au Canada par le Collège royal des médecins et chirurgiens du Canada et son cadre CanMEDS. Le stress, l'épuisement professionnel et la dépression des résidents ont également un impact sur les soins aux patients. Bien que des programmes d'étude aient été recommandés afin de promouvoir le bien-être et la résilience des résidents, il n'existe pas de curriculum publié pour guider les programmes qui souhaitent combler ces besoins. L'objectif de cet article est de décrire le contenu et l'exécution du Programme en anesthésiologie pour le bien-être des résidents (le PABER) à l'Université de la Saskatchewan. Le curriculum du PABER comporte quatre composantes : un curriculum modulaire, un curriculum de soutien par les pairs, des activités d'apprentissage autodirigées et un programme de bien-être au sein du département. La matrice du programme illustre la mission, la population cible, les ressources nécessaires, les données et les résultats du PABER. Le contenu et les suggestions pour l'exécution des huit modules du curriculum sont exposés en détail. Le PABER décrit ici représente une véritable innovation dans la formation médicale de troisième cycle au Canada. Nous pensons que ce PABER est le premier en son genre au Canada : il est à la fois exhaustif, formalisé et actualisé. Il constitue également un guide et une ressource utile pour la mise au point future de programmes pour le bien-être des résidents dans d'autres disciplines au Canada et dans le monde.*

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Background

Resident and physician health are increasingly recognized by the Royal College of Physicians and Surgeons of

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Canada (RCPSC) and its CanMEDS framework as integral to residency training. Resident stress, burnout, and depression also have implications for patient care.[1,2] Although curricula have been advocated to promote resident wellness and resilience,[3] no such published curricula exist to guide programs in addressing these needs.

We have presented the concept and development of the Anesthesiology Resident Wellness Program (ARWP) separately in this issue.[4] The ARWP was developed in response to the inclusion of physician health in CanMEDS 2005 and further adapted with the 2015 iteration.[5] The curricular modules developed were based on topics presented at the 2009 Canadian Conference on Physician Health, in the RCPSC Physician Health Guide,[6] from the CanMEDS Train-the-Trainer session on Physician Health,[7] and from the results of an environmental scan of Canadian anesthesiology programs.[4]

The purpose of this article is to present the curriculum content and delivery of the ARWP. We also expand upon the continuing evolution and future directions for the ARWP.

Curricular content

A program matrix is a visual depiction used by stakeholders as a tool for planning, implementing, and evaluating a program that comprises resources, outputs, and outcomes. We developed an ARWP matrix to describe the structure of the program, including its goals, target populations, assumptions of support, and required inputs. From these components, we developed the outputs that define the structure of the ARWP and its short-term, intermediate, and long-term outcomes (Figure 1).

Modular curriculum

The ARWP modules provide a foundation on which to cover various topics that were identified by the RCPSC,[6,7] the anesthesiology program directors (PDs),[4] and the residents themselves.[4] Additional details are available in the accompanying article, "Concept and Development," appearing elsewhere in this issue.[4] The list of module topics (with the details for each presented in the corresponding appendices) is as follows:

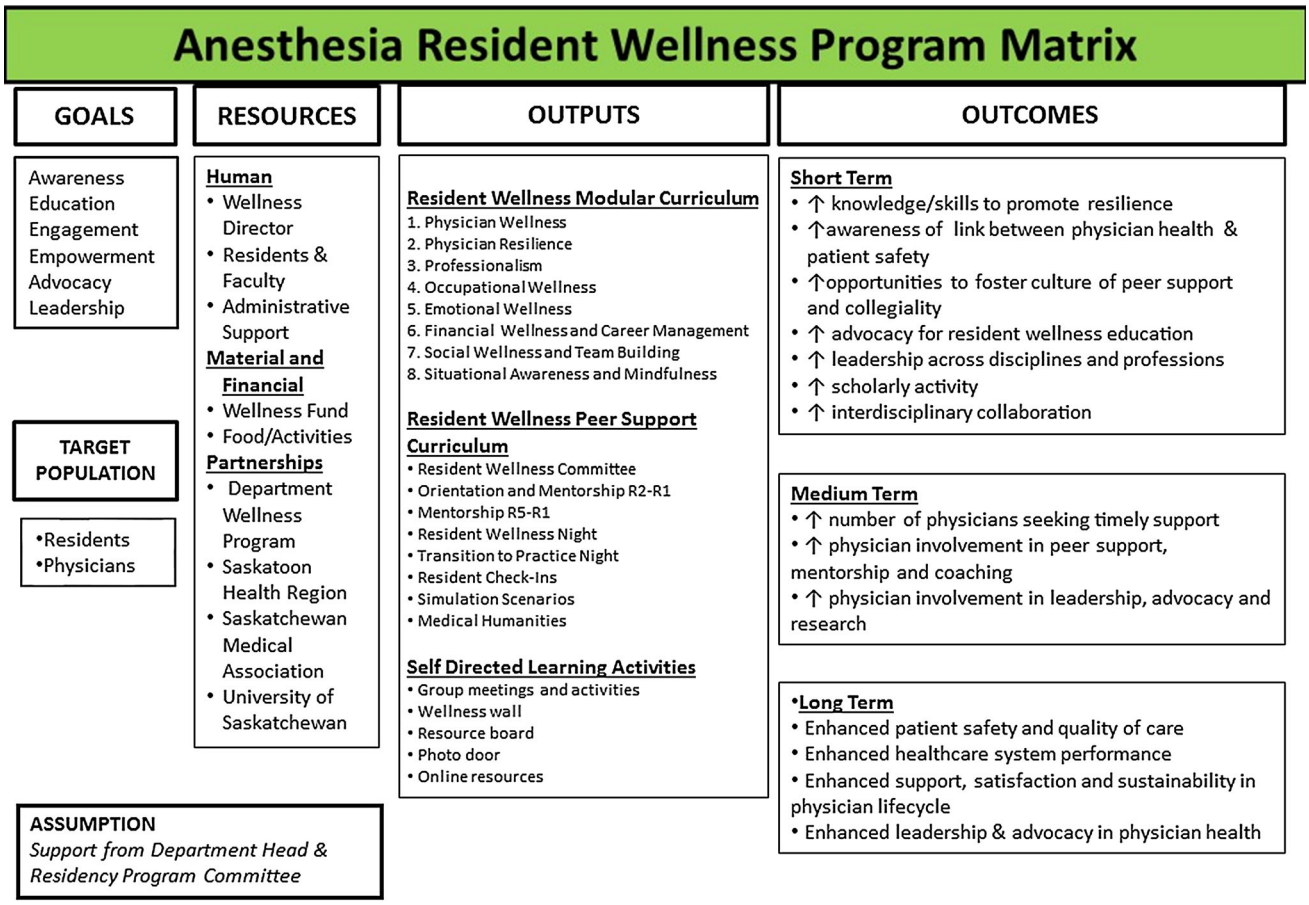

Figure 1 Anesthesia Resident Wellness Program matrix.

- Module 1: Physician Wellness (Appendix 1)
- Module 2: Physician Resilience (Appendix 2)
- Module 3: Professionalism (Appendix 3)
- Module 4: Occupational Wellness (Appendix 4)
- Module 5: Emotional Wellness (Appendix 5)
- Module 6: Financial Wellness and Career Management (Appendix 6)
- Module 7: Social Wellness and Team Building (Appendix 7)
- Module 8: Situational Awareness and Mindfulness (Appendix 8)

Each module is co-facilitated by a faculty member with an interest in physician wellness and a resident (usually one who is a member of the Resident Wellness Committee). Each module has a title, topics, learning objectives, suggestions for preparation and pre-reading, delivery methods (e.g., didactic, small group, role play, simulation), and a list of associated resources.

The ARWP curriculum seminars run on a two-year cycle, with two of eight modules usually offered per term (i.e., four sessions per academic year). Because of the overall compact residency training curriculum, however, we are sometimes unable to offer the full four sessions per year. In these circumstances, we have combined two modules, if needed, and have also presented a topic at one of our departmental Grand Rounds each term or in our separate visiting guest lecturer series. We have also used the Resident Wellness Night and Transition to Practice Night to discuss specific topics that lend themselves well to those situations. Additional details can be found later in the article in the sections that address the Peer Support Curriculum, Self-Directed Learning Activities, and Department Wellness Program.

Because of the often sensitive nature of the topics and discussions, it is crucial to create a sense of safety that can be supported by discussions of trust, respect, and "double confidentiality" prior to each session. "Double confidentiality" assumes that not only will one not repeat anything discussed in the session but that participants will not approach each other outside of this space to discuss or advise further.[8] This format allows a deeper discussion and openness and allows faculty and residents to share the experiences as well as challenges and rewards of trying to maintain a balanced work life in the context of a demanding career. It is crucial to have specific information (e.g., Saskatchewan Medical Association Physician Health Program, University of Saskatchewan Student Health Services, University of Saskatchewan Resident Resource Office) about personnel and resources for support available at all times.

There are many other relevant topics (a substantial list of which is available in the RCPSC Physician Health Guide)[6] that may be substituted at the discretion of the Resident Wellness Committee and the Residency Program Director. We found it easiest to introduce the modular curriculum first, after which we added the Peer Support Curriculum and Self-Directed Learning Activities as time and capacity permitted.

Peer support curriculum

The Peer Support Curriculum encompasses the Resident Wellness Committee, Mentorship, and Resident Wellness/Transition to Practice Evening Events.

Resident wellness committee

The first curricular seminar presented at the start of each new residency year (July) introduces the ARWP. At the end of the session, the first-year residents are invited to join the Resident Wellness Committee (RWC) by senior members of the RWC, who themselves speak to the time and energy commitments of involvement and the benefits of participating. They then answer any questions. It is important to emphasize that the RWC is made up of residents and is explicitly for the benefit of residents. In our program of 32 residents, we request that two members per each resident class year participate. The ARWP has faculty advisors/mentors who are leading participants in a Department Wellness Program Peer2Peer (P2P) support group. This arrangement allows cohesiveness in planning, clarity of messaging, and opportunities for collaboration between residents, faculty, and other healthcare team members in the department. The current RWC is comprised of one staff physician, two junior faculty members, two resident representatives per class year, and one administrative support staff member who works with the P2P group. It is the responsibility of all RWC members to collaborate to co-create a culture of resilience, peer support, and collegiality to enhance personal wellness and a healthy workplace, which positively affects the quality of patient care and patient safety. The RWC faculty and residents are responsible for organizing the wellness curriculum seminars and professionalism rounds as well as collaborate with the P2P group.

R2-R1 mentorship

The resident mentorship programming begins with the initial Canadian Resident Matching Service interview processes, where the applicants are made to feel comfortable and safe during what is often a stressful time during the matching process. As soon as the match results are announced, each of the incoming first-year residents (R1) are connected with a second-year resident (R2), who

makes contact with, assists, and supports the new resident's transition into this new phase of the residency life cycle. This mentorship continues throughout the first year and beyond. Informal feedback from residents has been positive about this arrangement.

R5-R1 mentorship

Upon entering the residency program, a formal individualized mentorship is also established between R1 and R5 residents. Each R1 resident is assigned to work in the operating room with a R5 resident for one- to two-week periods. This enables the development of personal and professional bonds at a much needed time of transition. The feedback from residents has been positive about this particular mentorship model.

Resident wellness night

On one evening per year, residents and their significant others attend the Resident Wellness Night, which is considered a mandatory part of the curriculum. Attendance by a significant other is not mandatory but is strongly encouraged. Residents and their significant others, other faculty invited by the residents, and the faculty advisors of the RWC have a dinner, usually at the home of one of the faculty members. Prior to this resident wellness night dinner, the topics to be discussed are shared. After dinner, all attendees seat themselves, and a short introduction is made – again emphasizing confidentiality and respect. Residents and their significant others are reminded that it is often the person at home who recognizes that things may not be going well with the resident. They are also reminded that our Saskatchewan Medical Association Physician Health Program can anonymously provide options to the family member in regard to approaching the resident and for issues they themselves or immediate family members may be having. The evening begins with a few faculty narratives and then opens up to the question/answer portion of the evening. If a safe, supportive environment has been created, the residents often speak about their own challenges and issues. It is important to acknowledge that physicians at all stages of life may have challenges, need support, and must stay resilient. The topics we have covered are substance use disorders and addictions (with powerful faculty narratives), the impact and recovery from significant adverse events, and various mental health narratives (e.g., depression, suicide, anxiety). There is often an expressed need for discussion about the challenge of spousal relationships in medicine. Although spousal challenges are often raised, it is still difficult to find individuals who are willing to talk about such personal subjects.

Transition to practice night

In the second term of the ARWP, there is a Transition to Practice Night, with all residents and selected faculty (both junior and senior) members invited to attend. The purpose of the Transition to Practice Night is to recognize the challenges associated with residency training, especially at points of transition to different stages of training. This range includes, but is not limited to, the final transition to practice. Such focussed discussion of these transitions in a collegial and confidential manner is intended to prepare the residents to better adapt to these changes. Professional licensing, contractual obligations, financial aspects of practice, and fellowship training are some of the other topics that come up regularly in these discussions. "What do you wish you had known?" is a common question that explores these and other themes.

Resident "check-ins"

A regular resident "check-in" component of ARWP takes both group and individual forms. The group encounter is called the "bear pit" and takes place once a month with 30- to 60-min confidential discussions about all aspects of the program between the residents and the PD. This check-in allows problems to be detected before they become significant. Individual check-ins take the form of quarterly meetings (usually lasting 5-15 min) with the PD. A standardized format is utilized for these check-ins, with a Microsoft Excel spreadsheet used to collect and maintain longitudinal data. These data are used for the purpose of this check-in, and each resident's records are available only to that resident and the PD. The standardized questions relate to personal and family health, financial well-being, and the learning environment (specifically as it relates to issues of intimidation and harassment).

Simulation scenarios

Following department educational sessions regarding the impact of adverse events, discussion with our local simulation faculty led to the development of a scenario of an unanticipated death in the operating room that required disclosure and/or apology. Although this simulation might ideally be positioned more appropriately in Module 2 (physician resilience), its use is not always possible, and it does stand well on its own. It has been an extremely powerful tool to educate our residents on how negatively an adverse event may affect them. It also gives them some practice with these difficult disclosures to the patient's relatives and care-givers.

A standardized set of simulation scenarios has been developed at a national level by the Canadian National

Anesthesiology Simulation Curriculum (CanNASC). Our program uses these standardized scenarios to discuss adverse event disclosure, physician resilience, stress mitigation or physician wellness in general.

Self-directed learning activities and supportive learning environment

Residents are encouraged to develop and share personal resilience skills, tools, and strategies to maintain wellness during residency and beyond. Wellness choices are different for everyone, and so sharing of interests and passions allows the transfer of information and ideas and promotes community and cultural shifts. Group meetings and activities are also encouraged. During the last two years of the program, the residents have chosen to make a commitment to meet with their cohort once every rotation just to "check in" *with* each other and *for* each other.

Several initiatives have been undertaken to create a safe, supportive environment. Congratulatory posters for resident and faculty achievements and awards are prominently displayed at the entrance to the department. Also displayed prominently is a "wellness wall," with photographs of residents participating in leisure pursuits, team building activities, and social events. A "photo door" to the Residency Program Administrative Coordinator's office is covered in photographs of new babies, weddings, family holidays, and achievements of faculty, residents, and staff of the department. The Program Coordinator always has an open door, keeps a jar full of "goodies," and is always a welcoming and supportive person for all residents and faculty. These artifacts and examples serve as visual reminders of the important people, places, and things in our collective lives outside of work.

The department library has a large bulletin board/ resource center with support names and numbers, information on physician wellness, self-reflection questionnaires, and tools as well as a selection of books on physician wellness. Online web resources and links are being developed.

Department Wellness Program

Some of the wellness activities in the department predated the ARWP. The ARWP, however, has provided impetus for the development of a much more robust and comprehensive Department Wellness Program (DWP). One of the benefits of the formal development of the DWP has been recognition of the critical role that wellness plays throughout the physician's life cycle. The major components of the current DWP include the following.

- *Visiting Professor Lectures* have been available for many years on a wide range of topics.
- The annual *Barrie Reynolds Memorial Lecture*, initiated in 2000 in honor of a well-respected PD who committed suicide. This lecture, supported by his family, highlights physician wellness.
- *Grand Rounds on Professionalism/ Physician Health* are held twice each academic year.
- A welcome package of important information and a meeting with a senior faculty mentor provides much needed support for new faculty in areas ranging from physician health to clinical support. A natural progression was the development of the *P2P support group*. This initiative offers collegial support to faculty members who experience significant challenges in their personal and professional lives.
- An active list of *online and other resources* for physician health for residents is available.
- *Opportunities for social engagement*, such as the July Welcome BBQ and an annual December Holiday Party, provide more opportunities to connect outside the hospital setting.
- *Collaboration with affiliated local stakeholders,* in recognition of the similarities in wellness challenges with other healthcare professionals, include the those with the Saskatoon Health Region's Patient Safety initiative, which recognizes the importance of healthcare worker wellness in relation to patient safety; an ongoing Policy Development for Adverse Events; and most recently, the Schwartz Rounds™ on compassionate care, which provides a safe, supportive environment for healthcare and human services providers to share stories and discuss challenges to maintaining compassion.[9] In addition, an annual lecture in physician wellness has been set up for the College of Medicine Annual Scientific and Reunion conference, and positions in physician health promotion have been created by the Saskatoon Health Region Healthy Workplace Committee, the Saskatchewan Medical Association Physician Health Program, and the University Healthy CampUS committee. Several other initiatives that support the health and wellness of healthcare providers are also under way.

Discussion

Our ARWP, which includes a modular curriculum, a peer support curriculum, self-directed learning, and the concurrent DWP, is a novel innovation aimed at physician wellness in Canadian postgraduate medical education. We believe that the ARWP is the first such

comprehensive, formalized, actualized program in Canada. It also provides a template for the development of RWPs in other disciplines in Canada and internationally. Our ARWP has served as the lightning rod for recognition of the critical nature of wellness throughout the physician life cycle in our department. The modular nature of our ARWP lends itself very well to stepwise implementation, depending on the resources of individual programs. The importance that CanMEDS 2015 places on physician health and wellness is well addressed by our ARWP.

Despite the many strengths and novel nature of our ARWP, there are some inherent limitations. Foremost among them is the need for formalized, comprehensive evaluation of each of its strategies. Essential to any future evaluation strategies is the formalized resident input at each stage.

Future directions

Adaptation of the ARWP to the Competency Based Medical Education paradigm coming to anesthesia residency programs is a priority for the immediate future. Given the recent emphasis on physicians' life cycle, there is potential for integrating elements of the ARWP with the undergraduate wellness curricula, the Resident Doctors of Canada Resiliency Curriculum,[10] and continuing medical education for physicians. We envision dissemination of the ARWP via a blended delivery format (i.e., online as well as face to face) to other anesthesiology programs nationally and internationally. In anticipation of potentially limited prior exposure to wellness programming, we advocate formal wellness orientation workshops for teaching faculty and residents. Such a strategy would likely be helpful in local ARWP design and implementation. We anticipate that aspects of the ARWP will be of interest to other medical disciplines and non-medical professions in the development of their own wellness programs. We also think it is important to develop an integrative Medical Humanities component, with emphasis on cultural aspects such as shared experiences, publications, humour, champions, and heroes.

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Conflicts of interest None declared.

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Appendix 1

Module 1 Physician Wellness

Basic Concepts Linking Wellness with Work-Life Balance, Peer Support, and Patient Care

Learning Objectives

1. Contrast "health" and "wellness" as distinct concepts.
2. Describe the importance of wellness in creating a sustainable work-life balance and a healthy workplace with significant peer support.
3. Discuss the impact of physician wellness on patient care and safety.

Advance Preparation

1. Resident self-check (recommended) – Record vital signs including height, weight, BMI. Keep 3-day wellness log including nutrition, sleep, exercise, social activities, etc. A template is available from the authors.
2. Family doctor identification (recommended) – Local and provincial resources direct residents to a physician if they do not already have one.

Module Content and Delivery

1. Introduce Anesthesia Resident Wellness Program (ARWP).
    a. Discuss the rationale for the ARWP.
    b. Introduce the eight modules, the peer support curriculum, and the self-directed learning elements of the ARWP.
    c. Identify local, provincial, and national resources to support resident wellness.
2. Describe the key elements that affect physician wellness.
    a. Stress, fatigue, and time management
    b. Nutrition, hydration, and activity
    c. Personal and professional relationships
    d. Learning environment and healthy workplace

Follow Up

1. Identify two first-year residents to join the Resident Wellness Committee (RWC).

Essential Resources

1. *Cohen JS, Patten S.* Well-being in residency training: a survey examining resident physician satisfaction both within and outside of residency training and mental health in Alberta. BMC Med Educ 2005; 5: 21.
2. *Jennings ML, Slavin SJ*. Resident wellness matters: optimizing resident education and wellness through the learning environment. Acad Med 2015; 90: 1246-50.
3. *Wallace JE, Lemaire JB, Ghali WA*. Physician wellness: a missing quality indicator. Lancet 2009; 374: 1714-21.
4. *Adams EF, Lee AJ, Pritchard CW, White RJ*. What stops us from healing the healers: a survey of help-seeking behaviour, stigmatisation and depression within the medical profession. Int J Soc Psychiatry 2010; 56: 359-70.

Supplemental Resources

1. *de Oliveira GS Jr, Chang R, Fitzgerald PC, et al*. The prevalence of burnout and depression and their association with adherence to safety and practice standards: a survey of United States anesthesiology trainees. Anesth Analg 2013; 117: 182-93.
2. *Fahrenkopf AM, Sectish TC, Barger LK, et al*. Rates of medication errors among depressed and burnt out residents: a prospective cohort study. BMJ 2008; 336: 488-91.
3. *Zwack J, Schweitzer J*. If every fifth physician is affected by burnout, what about the other four? Resilience strategies of experienced physicians. Acad Med 2013; 88: 382-9.
4. *Hamidi MS, Boggild MK, Cheung AM*. Running on empty: a review of nutrition and physicians' well-being. Postgrad Med J 2016; 92: 478-81.

Appendix 2

Module 2 Physician Resilience

Developing Resilience in the context of Adverse Events, Complaints, and Litigation

Learning Objectives

1. Define Resilience and the scope of Adverse Events (medical error, complaint, litigation, intimidation and harassment, etc).
2. Recognize the personal and professional impact of adverse events, complaints, and litigation throughout the physician life cycle.
3. Enumerate strategies and resources for promoting resilience.

Advance Preparation

1. Residents are invited to submit anonymized real or hypothetical cases in advance for discussion during the module.
2. Review Essential Resources.
3. This module is often given in conjunction with a Resident Wellness Night of the same theme (recommended).

Module Content and Delivery:

1. Recognize the critical nature of a safe and supportive environment. Focus on trust and confidentiality when exploring the module content, especially the overtones of vulnerability, shame, and blame.
2. List common reactions and responses to adverse events and introduce resilience as a positive adaptive mechanism.
3. It is important to have a faculty member initiate discussion with personal anecdotes related to adverse events and resilience. The residents are then encouraged to contribute fresh narratives for further discussion, with the pre-submitted cases as backup.
4. Introduce a simulated scenario with unanticipated perioperative death requiring disclosure and apology.
5. Self-reflection: Write half a page (10 min) on the impact of an adverse event you experienced or witnessed during your medical career and how it relates to resilience (optional).

Follow Up

1. Identify three people who you consider safe to talk to, write the names on a piece of paper, and put it in your wallet. Let them know they are on your list. CALL when needed. Try to have a family member, a friend, and a colleague in your list.

Essential Resources

1. *Epstein RM, Krasner MS*. Physician resilience: what it means, why it matters, and how to promote it. Acad Med 2013; 88: 301-3.
2. *Goldman B*. Doctors make mistakes. Can we talk about that? Toronto (ON): TEDxToronto 2010; filmed November 2011; Available from: http://www.ted.com/talks/brian_goldman_doctors_make_mistakes_can_we_talk_about_that?language=en (accessed September 2016).
3. *Gazoni FM, Amato PE, Malik ZM, Durieux ME*. The impact of perioperative catastrophes on anesthesiologists: results of a national survey. Anesth Analg 2012; 114: 596-603.
4. *Todesco J, Rasic NF, Capstick J*. The effect of unanticipated perioperative death on anesthesiologists. Can J Anesth 2010; 57: 361-7.

Supplemental Resources

1. *Gazoni FM, Durieux ME, Wells L*. Life after death: the aftermath of perioperative catastrophes. Anesth Analg 2008; 107: 591-600.
2. *Scott SD, Hirschinger LE, Cox KR, McCoig M, Brandt J, Hall LW*. The natural history of recovery for the healthcare provider "second victim" after adverse patient events. Qual Saf Health Care 2009; 18: 325-30.
3. *Van Gerven E, Vander ET, Vandenbroeck S, et al*. Increased risk of burnout for physicians and nurses involved in a patient safety incident. Med Care 2016; 54: 937-43 10.1097/MLR
4. ePhysicianHealth.com (accessed September 2016).

Appendix 3

Module 3 Professionalism

Developing a Culture of Collegiality, Responsibility, and Accountability

Learning Objectives

1. Define professionalism.
2. Define disruptive behavior. Discuss its prevalence, causes, and consequences.
3. Identify strategies for promotion of healthy behaviors and conflict resolution.

Advance Preparation

Review essential resources.

Module Content and Delivery

1. Review expected standards of professionalism for faculty and residents.
2. Integrate conflict management, effective communications skills, and collegiality as the cornerstones of healthy, professional behaviour.
3. Introduce case-based group discussion, role playing, and simulated scenarios highlighting professionalism and healthy behaviours.
4. Interdisciplinary Grand Rounds on Professionalism.

Follow-up

1. Discuss professionalism and healthy behaviours as an integral part of resident evaluations.

Essential Resources

1. *Fargen KM, Drolet BC, Philibert I*. Unprofessional behaviors among tomorrow's physicians: review of the literature with a focus on risk factors, temporal trends, and future directions. Acad Med 2016; 91: 858-64.
2. *Hickson GB, Pichert JW, Webb LE, Gabbe SG*. A complementary approach to promoting professionalism: identifying, measuring, and addressing unprofessional behaviors. Acad Med 2007; 82: 1040-8.
3. *Rosenstein AH*. Physician disruptive behaviors: five year progress report. World J Clin Cases 2015; 3: 930-4.

Supplemental Resources

1. *The Canadian Medical Protective Association*. The role of physician leaders in addressing physician disruptive behavior in healthcare institutions. 2013. Ottawa, ON. Available from URL: https://www.cmpa-acpm.ca/documents/10179/24871/13_Disruptive_Behaviour_booklet-e.pdf (accessed September 2016).
2. *Health Quality Council of Alberta*. Managing disruptive behavior in the healthcare workplace – Provincial framework. 2013. Calgary, AB. Available from URL: http://hqca.ca/health-care-provider-resources/frameworks/managing-disruptive-behavior-in-the-health care-workplace-provincial-framework/ (accessed September 2016).

3. College of Physicians and Surgeons of Ontario and Ontario Hospital Association. Guidebook for managing disruptive physician behavior. 2008 Apr. Toronto, ON. Available from URL: http://www.cpso.on.ca/CPSO/media/uploadedfiles/policies/policies/Disruptive_Behaviour_Guidebook.pdf (accessed September 2016).
4. *The Canadian Medical Protective Association*. Conflict between physicians and what can be done about it. CMPA Perspective 2015. Available from URL: https://www.cmpa-acpm.ca/-/conflict-between-physicians-and-what-can-be-done-about-it (accessed September 2016).

Appendix 4

Module 4: Occupational Wellness

Ergonomics, Noise Pollution, Infectious Disease, Physical and Psychological Hazards

Learning Objectives

1. Describe the occupational hazards most commonly associated with the training and practice of anesthesiology.
2. Discuss strategies for preventing and mitigating these occupational hazards.

Advance Preparation

1. Two weeks prior, conduct an update of personal safety equipment including lead gown, mask, eye and ear protection, and vaccinations.
2. Review hospital policy regarding needle stick injury and follow-up. (Send to each resident).

Module Content and Delivery

Interdisciplinary Grand Rounds, simulated scenarios, and group discussions focusing on the following.

1. Ergonomics
    a. Musculoskeletal morbidity
    b. Repetitive strain injury
    c. Other
2. Noise pollution
3. Physical hazards
    a. Radiation or electromagnetic field exposure
    b. Electrocautery, laser smoke plume, waste anesthetic gases
    c. Accidental injuries including needlestick, lacerations, and glass splinters
    d. Latex allergy
    e. Environmental pollution related to anesthesia delivery
4. Infectious disease
    a. HIV
    b. HepB and HepC
    c. TB
5. Stress and fatigue management (emotional hazards are covered in other modules)

Essential Resources

1. *Katz JD*. Occupational health considerations for anesthesiologists: from ergonomics to economics. ASA Refresher Courses in Anesthesiology 2011; 39: 65-71.
2. *Thomas I, Carter JA*. Occupational hazards of anaesthesia. Contin Educ Anaesth Crit Care Pain 2006; 6: 182-7.
3. *Katz JD*. Noise in the operating room. Anesthesiology 2014; 121: 894-8.

Supplemental Resources

None.

Appendix 5

Module 5 Emotional Wellness

Substance Use Disorders and Addictions, Depression, Anxiety, Suicide, Colleague in Need

Learning Objectives

1. Review the incidence, prevalence, and impact of substance use disorders, addictions, burnout, depression, anxiety, and suicide in anesthesiology.
2. Describe how to identify a colleague in need from a mental wellness perspective.
3. Outline an approach to reaching out to a colleague in need.

Advance Preparation

1. Co-presenters should develop several role-play scenarios to be used at the time of module delivery.

Module Content and Delivery

1. Interdisciplinary Grand Rounds presented by a mental health professional with particular expertise in physician wellness.
2. Pre-developed role play scenarios focusing on responsibility to colleagues, appropriate identification of and strategies to reach out and respond to the colleague in need.
3. Group discussion, handouts, and bulletin boards to identify appropriate resources in promoting mental wellness.

Follow-Up

1. Self-directed learning activity. Complete a standardized self-assessment mental wellness survey. Emphasize the importance of this point.

Essential Resources

1. *Center C, Davis M, Detre T, et al*. Confronting depression and suicide in physicians: a consensus statement. JAMA 2003; 289: 3161-6.
2. *Dyrbye LN, West CP, Satele D, et al*. Burnout among U.S. medical students, residents, and early career physicians relative to the general US population. Acad Med 2014; 89: 443-51.

Supplemental Resources

1. *Schernhammer E.* Taking their own lives – the high rate of physician suicide. N Engl J Med 2005; 352; 2473-6.
2. *CMA Board Working Group on Mental Health; CMA Physician Mental Health Strategy Working Group*. Physician health matters. A mental health strategy for physicians in Canada. Canadian Medical Association. 2010 Feb. Ottawa, ON. Available from URL: https://www.cma.ca/Assets/assets-library/document/en/practice-management-and-wellness/Mentalhealthstrat_final-e.pdf (accessed September 2016).
3. *Jackson ER, Shanafelt TD, Hasan O, Satele DV, Dyrbyr LN*. Burnout and alcohol abuse/dependence among US medical students. Acad Med 2016; 91: 1251-6.

Appendix 6

Module 6 Financial Wellness and Career Management

Financial Planning, Debt Management, Career Counselling, Career Transitions

Learning Objectives

1. Discuss the link between financial and personal wellness.
2. Describe the key components of comprehensive financial planning and debt management.
3. Enumerate the principles of career management, emphasizing the transitional phases of the physician life cycle.

Advance Preparation

1. Two weeks prior, conduct a personal financial review and/or meet with a financial planner (optional).
2. This module is often given in conjunction with the Transitions to Practice night (recommended).

Content and Delivery

1. Grand Rounds and group discussions on financial planning and debt management led by a financial planner or faculty member knowledgeable about financial matters.
2. Group discussions on the role of moonlighting in financial and residency management.
3. Highlight the career management challenges in transitioning to practice, including licensing, contractual arrangements, practice setup, and disability coverage.

Essential Resources

1. *Puddester D, Flynn L, Cohen J*. Section 10 – Financial Health (pp. 107-111). CanMEDS physician health guide: A practical handbook for physician health and well-being. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2009.
2. *Canadian Medical Association*. Module 2: Financial Planning. CMA National Practice Management Curriculum. Ottawa, ON. Available from URL: https://www.cma.ca/Assets/assets-library/document/en/practice-management-and-wellness/MEDED-12-00307-PMC-Module-2-e.pdf (accessed September 2016).

Supplemental Resources

1. *MD Financial Management*. Ottawa, ON: Canadian Medical Association. Available from URL: https://mdm.ca/ (accessed September 2016).

Appendix 7

Module 7 Social Wellness and Team Building

Personal and Professional Relationships, Mentorship, Coaching, Peer Support

Learning Objectives

1. List common challenges in personal and professional relationships throughout the physician life cycle.
2. Describe strategies that may promote social wellness.
3. Discuss the role of team-building exercises in promoting personal wellness and a healthy workplace.

Content and Delivery

1. Group discussions on the specific social circumstances that influence physician wellness: marital and parental status, gender, and maintaining social support structures.
2. Emphasize the importance of protected time for defined team-building activities (e.g., rock wall climbing, Go-Kart racing, paintball, dodgeball, curling, board games night, skating/ tobogganing).
3. The Peer Support Curriculum (Figure XX) complements this module.
4. Self-Directed Learning/ Community Building Activities also complement this module (e.g., marathon training teams, weekly squash game challenge, monthly social meetings).

Essential Resources

1. *Puddester D, Flynn L, Cohen J*. Section 3 - Balancing personal and professional life (pp. 21-27). CanMEDS physician health guide: A practical handbook for physician health and well-being. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2009.

Supplemental Resources

1. *Daskivich TJ, Jardine DA, Tseng J, et al*. Promotion of wellness and mental health awareness among physicians in training: perspective of a national, multispecialty panel of residents and fellows. J Grad Med Educ 2015; 7: 143-7.

Appendix 8

Module 8 Situational Awareness and Mindfulness

Personal and Team Performance, Optimum Learning, Patient Safety

Learning Objectives

1. Define and contrast situational awareness and mindfulness.
2. Describe how situational awareness and mindfulness promote physician wellness and patient safety.
3. Enumerate techniques to cultivate situational awareness and mindfulness.

Advance Preparation

1. Review essential resources.

Content and Delivery

1. Curriculum seminar identifying basic concepts of situational awareness and mindfulness and their practical applications in anesthesiology and personal wellness.
2. Small group exercises demonstrating improvement in task-based performance with situational awareness and mindfulness.

Follow-Up

1. Facilitate exploration of advanced concepts in situational awareness and mindfulness in workshops, retreats, seminars, and conferences.

Essential Resources

1. *Sibinga EM, Wu AW*. Clinician mindfulness and patient safety. JAMA 2010; 304: 2532-3.
2. *Fioratou E, Flin R, Glavin R, Patey R*. Beyond monitoring: distributed situation awareness in anaesthesia. Br J Anaesth 2010; 105: 83-90.

Supplemental Resources

1. *Krasner MS, Epstein RM, Beckman H, et al.* Association of an educational program in mindful

communication with burnout, empathy, and attitudes among primary care physicians. JAMA 2009; 302: 1284-93.
2. *Parush A, Campbell C, Hunter A, et al*. Situational awareness and patient safety. The Royal College of Physicians and Surgeons of Canada - 2011. Ottawa, ON. Available from URL: http://www.royalcollege.ca/portal/page/portal/rc/common/documents/canmeds/resources/publications/situational_awareness_patient_safety_preview_e.pdf (accessed September 2016).
3. *The Canadian Medical Protective Association*. Thinking ahead: the value of situational awareness. CMPA Perspective. 2013 December. Available from URL: https://www.cmpa-acpm.ca/-/thinking-ahead-the-value-of-situational-awareness (accessed September 2016).
4. *Goldhagen BE, Kingsolver K, Stinnett SS, Rosdahl JA*. Stress and burnout in residents: impact of a mindfulness-based resilience training. Adv Med Educ Pract 2015; 6: 525-32.

References

1. *Shanafelt TD*, *Bradley KA*, *Wipf JE*, *Back AL*. Burnout and self-reported patient care in an internal medicine residency program. Ann Intern Med 2002; 136: 358-67.
2. *Fahrenkopf AM*, *Sectish TC*, *Barger LK*, *et al*. Rates of medication errors among depressed and burnt out residents: prospective cohort study. BMJ 2008; 336: 488-91.
3. *Lefebvre DC*. Perspective: Resident physician wellness: a new hope. Acad Med 2012; 87: 598-602.
4. *Chakravarti A, Raazi M, O'Brien J, Balaton B*. Anesthesiology Resident Wellness Program at the University of Saskatchewan: concept and development. Can J Anesth 2017; 64: this issue. DOI: 10.1007/s12630-016-0772-1
5. *Frank JR, Snell L, Sherbino J*. CanMEDS 2015 Physician Competency Framework. Ottawa: Royal College of Physicians and Surgeons of Canada; 2015. Available from URL: http://www.royalcollege.ca/rcsite/documents/canmeds/canmeds-full-framework-e.pdf (accessed September 2016).
6. *Puddester D, Flynn L, Cohen J*. CanMEDS Physician Health Guide: A Practical Handbook for Physician Health and Well-Being. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2009. Available from URL: https://medicine.usask.ca/documents/pgme/CanMEDSPHG.pdf (accessed September 2016).
7. *Flynn L*, *Puddester D*, *Bourque F*, *Cohen J*, *Magnan A*. CanMEDS Professional: Physician Health Train-the-Trainer Professional Workshop Binder. Ottawa: The Royal College of Physicians and Surgeons of Canada; 2011 .
8. *Palmer PJ*. A Hidden Wholeness: The Journey Toward an Undivided Life. San Francisco, CA: Jossey Bass; 2004 .
9. *Lown BA*, *Manning CF*. The Schwartz Center Rounds: evaluation of an interdisciplinary approach to enhancing patient-centered communication, teamwork, and provider support. Acad Med 2010; 85: 1073-81.
10. *Resident Doctors of Canada*. Resiliency. Available from URL: http://residentdoctors.ca/wellness/resiliency/ (accessed September 2016).