FÉDÉRATION DES MÉDECINS RÉSIDENTS DU QUÉBEC

REPORT ON THE REASSESSMENT OF FAMILY MEDICINE RESIDENCY

Fall 2020

NOTE:

A number of terms and principles used in this report do not follow the official terminology used by the Quebec Ministry of Health and Social Services (MSSS) or other Canadian bodies. For instance, “family medicine unit (FMU)” is used here to designate both university family medicine groups (UFMGs) [*groupes de médecine de famille universitaire* (GMF-U)] and university family medicine clinics (UFMCs) [*cliniques universitaires de médecine de famille* (CUMF)]. The FMRQ has used these terms solely in the interest of readability.

Executive Summary

Medicine and medical education have evolved enormously over the past few years. Notable among new arrivals have been horizontalized programs, CanMEDS competencies, extensions of training, and the Triple C Competency-based Curriculum. Also, the medical knowledge to be acquired is growing exponentially, new professions are coming into being, and physicians' traditional tasks are changing. Several subjects are still topical, though, in particular family doctors' preparedness for practice, the addition of a mandatory 3rd year, curriculum flexibility, and resident doctors' wellness.

The FMRQ's Academic Affairs Committee – Family Medicine (CAP-MF) looked at residency in its current form so as to gauge how it could be improved. This report presents the findings of that work, and sets out pedagogical recommendations for the College of Family Physicians of Canada (CFPC) and Quebec's four medical schools.

A review of the literature on family medicine residency, in Quebec and elsewhere, shows that there has long been questioning as to the ideal length of training. The FMRQ has already taken a position in that regard, opposing the mandatory 1-year extension, while favouring greater flexibility for those wishing to take a 3rd year. But still today, the addition of a 3rd year divides resident doctors: 51% are against it, while 49% are in favour. Note that doctors who extend their residency (for a failed rotation or sick leave, for instance) are more against a 3-year residency than their colleagues. Program directors are also generally against the idea of adding a mandatory year, with 37.5% in favour and 62.5% against.

As to resident doctors' preparedness for practice, a poll of FMU directors carried out in spring 2020 revealed that they consider their resident doctors to feel confident at the idea of starting practice, with an average of 8.38 out of 10, whereas residents give themselves 7.2 out of 10. Training for becoming a good manager, and rotations in Emergency and Acute Care should be enhanced in certain settings. Also, doctors feel the need to personalize their residency so as to be better prepared for practice through rotations added post-residency and through a more flexible curriculum.

A survey carried out in 2017 revealed that 54.8% of Quebec's resident doctors presented symptoms of burnout. It is crucial to reduce the number of people suffering from that disorder, which is hugely detrimental to learning.

Finally, a review of FMU Tour data highlighted five points that contribute to residency being a positive experience for resident doctors: the competence of the physicians teaching them, curriculum flexibility, schedule, sound administration of FMUs, and emphasis on wellness.

Introduction

In order to assess how it would be possible to enhance family medicine residency, CAP-MF reviewed the FMRQ documentation accumulated over the years, the literature on the topic published in Quebec and elsewhere, and the FMU Tour[1] reports. The Committee also had the findings of the survey conducted in 2003 on extending residency, and another carried out in 2017 on Quebec resident doctors' stress and burnout levels. These two surveys helped place the information gathered by the Committee in perspective. Finally, CAP-MF also collected data from program and FMU directors, and from those completing their family medicine residency. They met with the Family Medicine program directors of the four Quebec universities to discuss those issues with them. Telephone meetings were carried out with FMU directors in March 2020, too. The Committee also conducted a poll on the same topics with the directors of the 51 FMUs in the Quebec system in April 2020. Finally, on May 1, 2020, in conjunction with the FMRQ's permanent staff, the Committee surveyed members who were then in their second and third years in family medicine and were finishing their residency in 2020.

With these data, the Committee considered some possible solutions. It wondered whether, at the end of residency, doctors felt confident to start their practice. It looked at areas of care that were less well mastered, and at the usefulness of a mandatory 3rd year and greater personalization of rotations. It also tried to find out whether resident doctors' wellness level had an impact on their ability to learn, and their interest in extending residency.

In this report, we will begin by briefly addressing historical data. Next we will present the findings of research conducted by CAP-MF, then we will discuss those findings, finally setting out a conclusion and recommendations for program directors which, we hope, will enhance family medicine residency.

1. Historical Evolution of Family Medicine Residency

Canada's first two family medicine residency programs were established by the University of Calgary and the University of Western Ontario in 1966. [1] These were three-year programs during which generalist physicians performed a 1-year rotating internship. In 1970, family medicine residency was reduced to two years. [2] Then, 2-year residency programs in family medicine were gradually introduced across Canada, first in Alberta and Quebec in the 1980s, in the wake of the Rochon Commission, [3] then in the rest of the country with the demise of the junior rotating internship in 1992. Since then, the family medicine program curriculum has garnered much debate as to whether resident doctors' training needed to be extended or modified. Discussions on the ideal length of residency took place periodically, particularly in the late 1990s and early 2000s. Indeed, at that time, the FMRQ was invited to share its views on the issue. At that point, it objected to the addition of a mandatory year of training, while favouring a revised 2-year curriculum along with greater flexibility for voluntary extensions of family medicine residency.

1 This Tour involved visiting each of the 51 family medicine units (FMUs) in Quebec over a 2-year period where at least one FMRQ representative questioned resident doctors about their curriculum, practice sites, work conditions, psychological health, etc. This Tour was also a chance for resident physicians to share their concerns as well as what their sites were getting right. Data from 2018 to 2020 were used, to highlight the main positive points in the different sites.

Early in 2003, the FMRQ surveyed 289 resident doctors (R) and 111 family physicians at the start of their careers (F), focussing on whether or not residency should be extended. Among the most important reasons for keeping postgraduate education at 2 years, the survey findings revealed that training was sufficient (R: 33%, F: 33%), learning could occur through work (R: 11%, F: 14%), and the length of training was sufficient (R: 11%, F: 15%). The findings also mentioned, with lower percentages, the following reasons for supporting the status quo, namely, the fact that extensions of training were already offered, and the addition of a 3rd year would exacerbate the shortage of physicians. Resident doctors pointed, too, to personal financial issues, and preferred to rejig the 2-year program rather than extending it by 1 year, while saying as well that they felt confident to start their practice. They were also asked for two reasons that would warrant adding a 3rd year of postgraduate education, and the findings showed that measure would be justified only if it led to the acquisition of more knowledge (R: 24%, F: 21%), greater clinical exposure (R: 22%, F: 25%), more targeted specialization (R: 17%, F: 25%), or, even, more optional rotation opportunities (R: 18%, F: 16%). Fewer than 10% of respondents pointed to the acquisition of more competencies or practical experience, greater confidence, or the possibility of being in contact with more complex cases. The FMRQ study then concluded that the majority of the data gathered from resident doctors and young physicians favoured maintaining the status quo, that is, 2-year postgraduate education in family medicine (or 3 years for the three recognized subspecialties), with the possibility of extending their training by a few months for those doctors who wished, up to a maximum of six months.

A literature review conducted by two CAP-MF members (see Appendix) shows that this debate is ongoing today, even outside Quebec. Indeed, since 2018, the CFPC has been working on a project which it considers to be one of the most important of recent years, dealing with learning objectives. This project, scheduled for completion by year end 2020, seeks to answer two essential questions: “Are we meeting the needs of our communities today? And, are we training doctors who are in a good position to meet the needs of our communities 10 years down the road in 2030?” [16] At the same time, the CFPC wishes to reassess family medicine residency as presently constituted, following consultation of partners, the university community, patients, regional health authorities, licensing authorities, and counterpart professional bodies in other countries. It is clear that the Canadian medical community is interested in the length of family medicine residency in this large-scale study.

2. Opinion of Quebec family medicine programs

The opinion of faculty has to be considered in drawing up a diagnosis of and recommendations for family medicine residency. It is worthwhile looking first at the views of the four Quebec universities’ program and FMU directors. These interviews and surveys carried out in 2020 led to the exploration of the following issues: preparation for family medicine practice, personalization of residency, possibility of adding a 3rd year, and resident physicians’ wellness. For the poll of FMU directors, some 80.4% (41 responses out of 51 FMUs) responded, namely, 9 of the 13 FMUs at Laval University, 10 of the 11 FMUs at the University of Sherbrooke, 14 of the 18 FMUs at the University of Montreal, and 7 of the 9 FMUs at McGill University. FMU directors responding to the survey had held their position for 3.12 years on average, and represented 757 resident doctors.

2.1 Preparedness for practice

FMU directors consider that resident physicians' confidence level with respect to entering practice averages 8.38 out of 10. The areas where they feel residents have the least confidence are, in order of importance, Acute Care, administrative management, Locomotor Disorders, Perinatal Care, long-term care facilities (CHSLDs), and Child and Adolescent Health.

A further element for improvement which came back several times is the volume of patients in offices and walk-in clinics.

2.2 Mandatory 3rd year

A mandatory 3rd year in family medicine is hotly contested, since 62.5% are against it, while 37.5% are in favour. The main arguments in favour are that it would allow for increased beneficial exposure for resident doctors (86.7%), and could help them hone their skills in tasks to be carried out post-residency (86.7%). Of those not wanting there to be a mandatory 3rd year, 60% responded that the administrative aspect was an issue. So, the majority of doctors against the 3rd year believed it would generate, among other things, problems with drawing up schedules and call duty, access to offices, and availability of doctors supervising them. Also, 40% mentioned that an increase in the number of rotations would not necessarily be beneficial for resident doctors' practice, and that the first year of practice involves much learning that a 3rd year of training could not provide. Close to one third of those doctors added that people do not all learn at the same pace, and that the curriculum should be better geared to that situation. Extension of residency could be variable, depending on resident physicians' competencies to be acquired and their practice, but should not be mandatory.

2.3 Personalization of residency

Personalization of residency is an accreditation criterion for family medicine programs in Canada. [18] Indeed, residency has to prepare doctors well for their careers. A majority of FMUs offer 12-16 weeks of optional rotations, depending on their program's rules; 85% of FMUs said they could offer doctors the possibility of personalizing their residency. For instance, Laval University allows those in the last 6 months of residency to replace half the generic activities (not including office days) by activities helpful to their career. So resident doctors could replace Emergency call duty by call duty in Obstetrics. A similar initiative is applied at the University of Montreal, where, in addition to the 3 mandatory optional rotations, resident physicians who are not in difficulty are offered a personalized curriculum with rotations of their choice, for up to 20 working days, in the last 6 months of their residency. At McGill University, the FMUs offer 3 optional rotations over the 2 years, as well as 2 selective rotations with a choice among certain rotations: 1 fundamental rotation (Internal Medicine, Pediatrics, or Mental Health) and 1 rotation in Acute Care.

In discussions with program directors, different methods for adding rotations at the end of the 2 years of residency were explored. Months of rotations can be added in two ways: by registering in a Category 1 or 2 Enhanced Skills program through a university site, or by adding an extension of training offered by the Quebec Ministry of Health and Social Services (MSSS) with the support of the recruiting establishment (Director of Professional Services of the site where the resident wishes to practise).

Concerning the first method, “Category 1 Enhanced Skills programs must use and are accredited based on national, CFPC defined and recognized, domain-specific competencies for assessment. Category 2 programs have local, university-based, domain-specific competencies defined for the purpose of assessment.” [18] Currently, Category 1 programs last 1 year (R3) and include certain recognized domains, such as Emergency Medicine, Care of the Elderly, Anesthesiology in Family Medicine, Clinician Scholar, Sport and Exercise Medicine, and Palliative Care. Category 2 programs are more numerous, and can vary in length, generally between 3 and 6 months (R2B). This includes, for instance, Perinatal Care, Palliative Care, Care of the Elderly, Toxicology, and Clinical Scholar programs.

Concerning the second method, the Quebec Ministry of Health and Social Services (MSSS) “has set up a customized extension of training program . . . carried out in a Quebec establishment . . . The candidate has to hold a position in the physician resource plan (*plan des effectifs médicaux*, or PEM) of the recruiting establishment, or a position must have been set aside for him prior to the extension of training.” [19] [Our translation]

In reality, extensions of training organized between the recruiting establishment and resident doctors are intended to fill a particular need, in line with the PEM obtained. The training is more often less than 3 months long, because beyond that duration, the number of training periods granted is limited. In addition, the training requested cannot correspond to training already offered by a university program.

Each year, fewer than 10% of resident doctors apply for extensions of training through the MSSS program. This is training sometimes suggested by the residency program for residents whose application for Enhanced Skills training is denied. Residency programs currently provide little publicity for this type of training, which appears to be largely unknown to doctors near the end of their residency. According to the poll conducted on FMU directors, however, 72.5% of them would be prepared to supervise doctors for extensions of training after their residency, if necessary. The 11 (27.5%) who responded in the negative did so for lack of physical space and of physicians who can supervise, since they were already at maximum capacity.

2.4 Wellness measures

FMU directors gave an average 7.5 out of 10 to the wellness measures offered by their FMUs. Several sites offer preventive measures to enhance resident doctors’ wellness, locally, and program-wide. At the local level, for instance, some FMUs offer ad-hoc meetings with psychologists or other outside specialists, and organize stress management classes and all kinds of social activities (movie night, graduation ball, supper meeting, etc.). At the program level, the initiatives vary. Some programs have their own wellness subcommittee, mostly set up recently. For instance, in each FMU in the McGill program, periods of 1 hour or so are organized every 3 months to bring together a psychologist, resident doctors and . . . ice cream. A budget allocated from the program fund is also devoted to activities organized by the chief resident of each FMU. Most programs organize full or half days dedicated to wellness, with presentations and classes on the subject.

3. Resident doctors' opinions

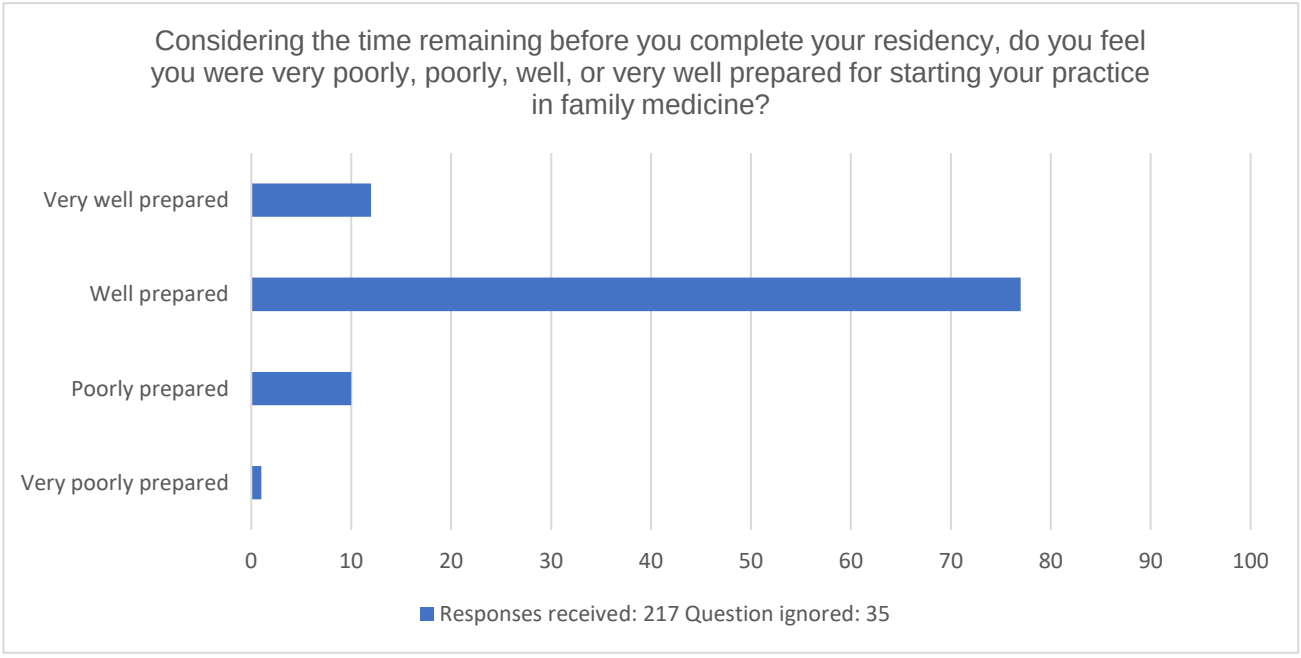
A poll was conducted on doctors completing family medicine residency. The goal of this survey was to gather those individuals' views on their preparedness and confidence with respect to starting out in practice, and on a mandatory additional year. In all, 497 family physicians (R2 and R3) who were to complete their residency in 2020 responded to this poll. Of the 407 resident physicians who opened the invitation to participate, 252 at least partially responded to the survey, representing 62% of those who opened the invitation and 51% of those polled. The margin of error for this survey is 4%, 19 times out of 20.

By way of introduction, resident doctors were asked whether their residency was scheduled to end on June 30, 2020. In all, 64% confirmed that they would be finishing on schedule, while 36% would not be completing their residency in 2 years. Of residents not completing their residency on time, 75% would nevertheless have completed it by the end of 2020, while the others were finishing in 2021.

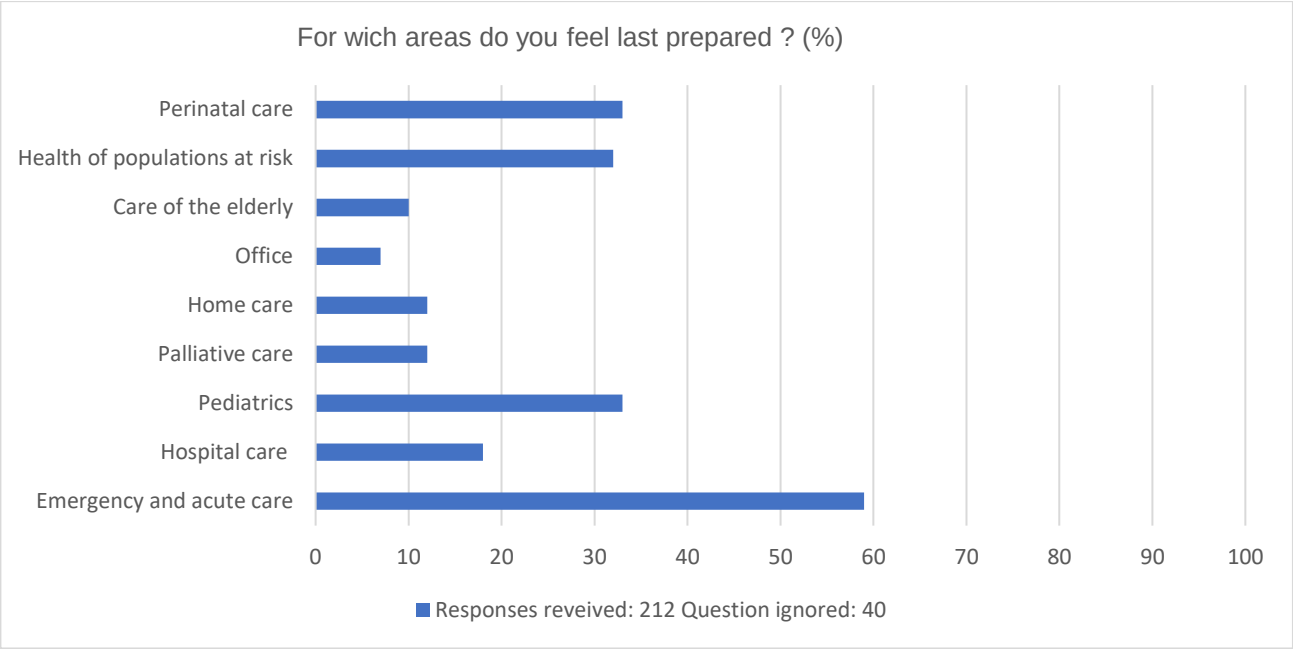
There are several reasons behind this delay (n=89), among them work accidents or occupational diseases (23%), including burnout, and parental leave (16%).

3.1 Preparedness and confidence on entering practice

Resident doctors were asked, considering the time left before they completed their residency, whether they felt they had been very poorly, poorly, well, or very well prepared for starting practice. In all, 90% of doctors responding felt they had been well or very well prepared (Figure 1). Only 10% felt they had been poorly prepared. They were also asked to rate, on a scale from 1 to 10 where 10 was the highest score, their level of confidence with respect to starting practice. Overall, resident doctors gave themselves a score of 7.2 out of 10. No major variation was seen between doctors completing residency in June 2020 (7.3) and the others (7.0), although, unsurprisingly, those not finishing in June said they were less confident.



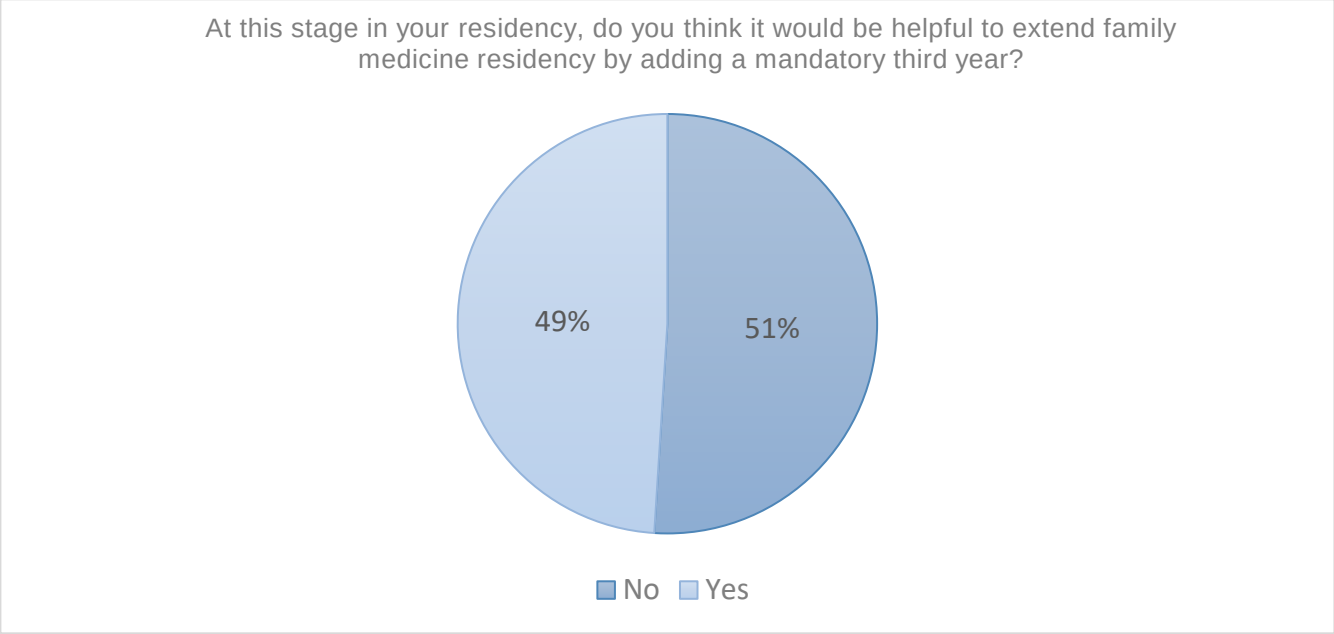
Another question resident doctors were asked concerned the areas of activity for which they felt the least confident (Figure 2), to which 58% responded Emergency and Acute Care, 34% Pediatrics, 34% Perinatal Care, and 32% Care for Populations at Risk. When asked for a recommendation for enhancing preparation for starting out in practice, 39.7% mentioned additional training on management at the start of practice, in particular permit applications, malpractice insurance, and, above all, billing (mentioned in 27.9% of responses). Only 3.7% of doctors spontaneously mentioned wanting more mandatory rotations in Emergency and Acute Care. Another recommendation made from the outset by 31.6% of doctors is to make the curriculum more flexible so as to hone their competencies in line with their impending practice. Several of them mentioned the possibility of adding optional rotations after their two years of residency, or optimizing the final months of residency to allow for more optional rotations in line with their desired practice.



3.2 Should an extension of residency be mandatory?

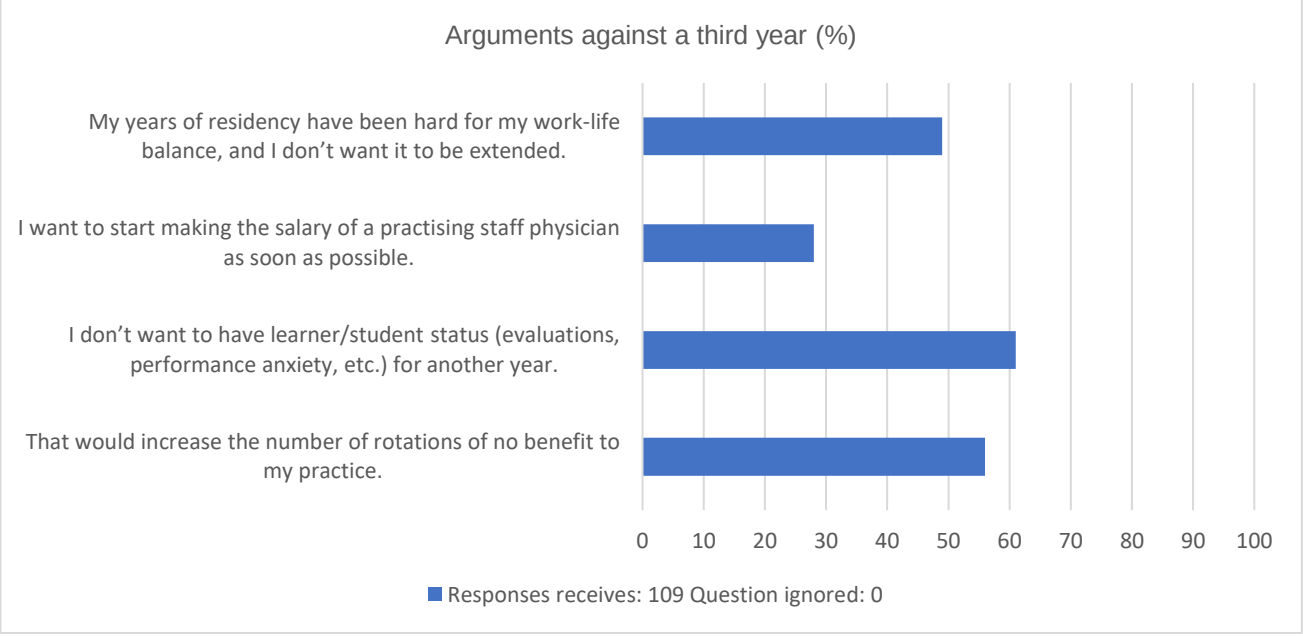
Resident doctors were asked whether, at this stage in their residency, they believed it was appropriate to extend family medicine residency by adding a mandatory 3rd year. The doctors' responses were split, with 51% against, and 49% in favour (Figure 3).

Note, however, that of the 51% of doctors against a mandatory 3rd year, 43 doctors not completing their residency in June 2020 for reasons beyond their control were against extending residency, while 39 physicians were in favour.



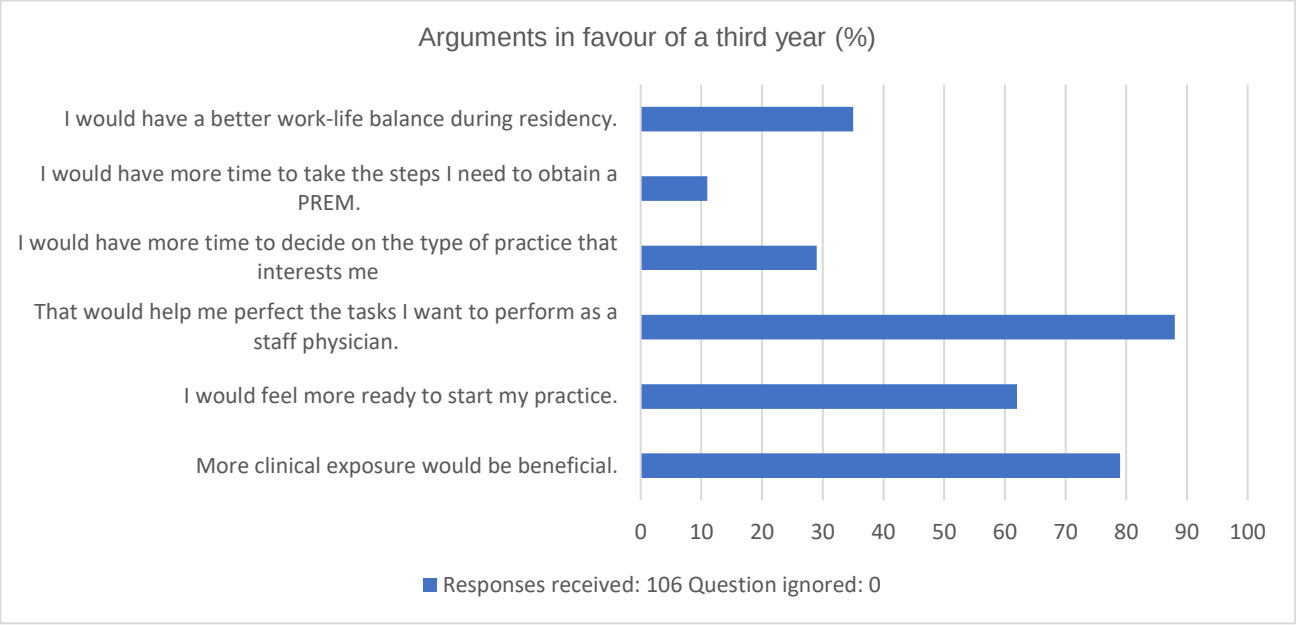
Responses received: 215
Question ignored: 37

Among respondents opposed to a mandatory extension (Figure 4), 62.4% did not wish to have learner status any longer, and 56% felt it would increase the number of rotations without benefit for their practice, but also 49.5% said they did not want their residency to be extended and that it had been hard on their life-work balance. It is interesting to observe that of the 109 respondents against an extension, 11 (10.1%) specified that they wanted to extend their residency, from a few months to 1 year, if that would help them have more optional rotations associated with their principal practice.



By contrast, of those in favour of an extension (Figure 5), 79.2% felt that more exposure would be beneficial, 86.8% wanted to perfect tasks to be performed as practising physicians, and 63.2% thought

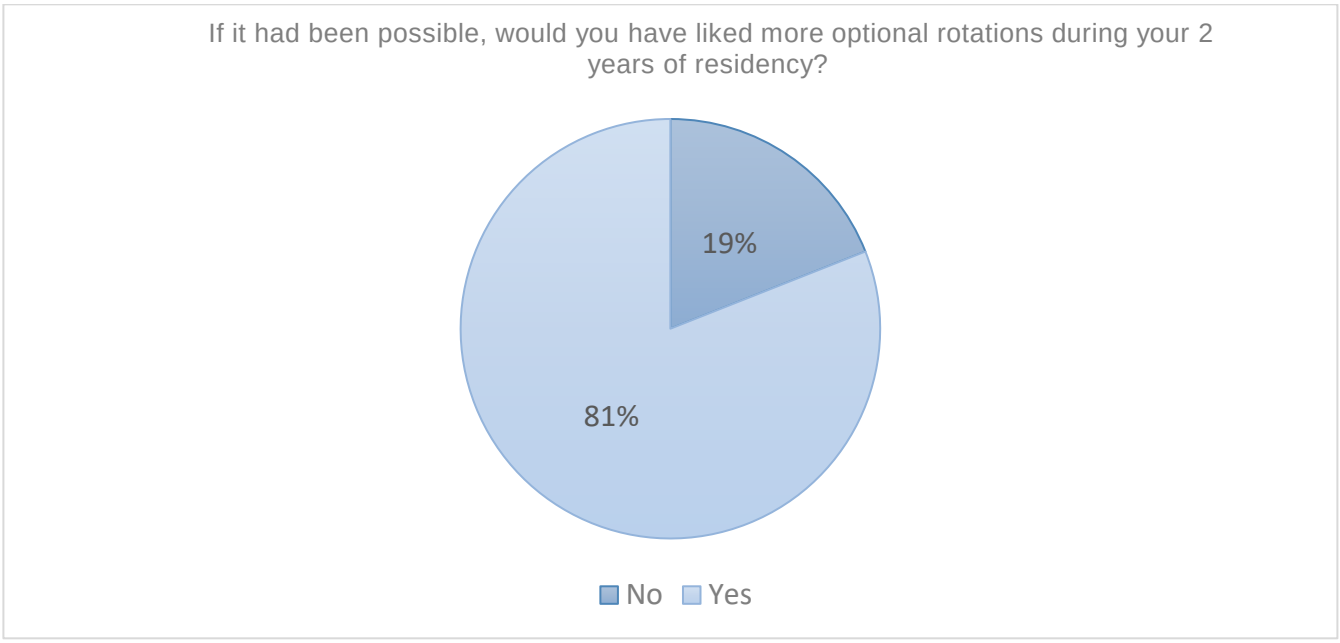
a 3rd year would help them feel more confident starting their practice. Also, 34.9% added that this would enable them to have a more balanced life during residency.



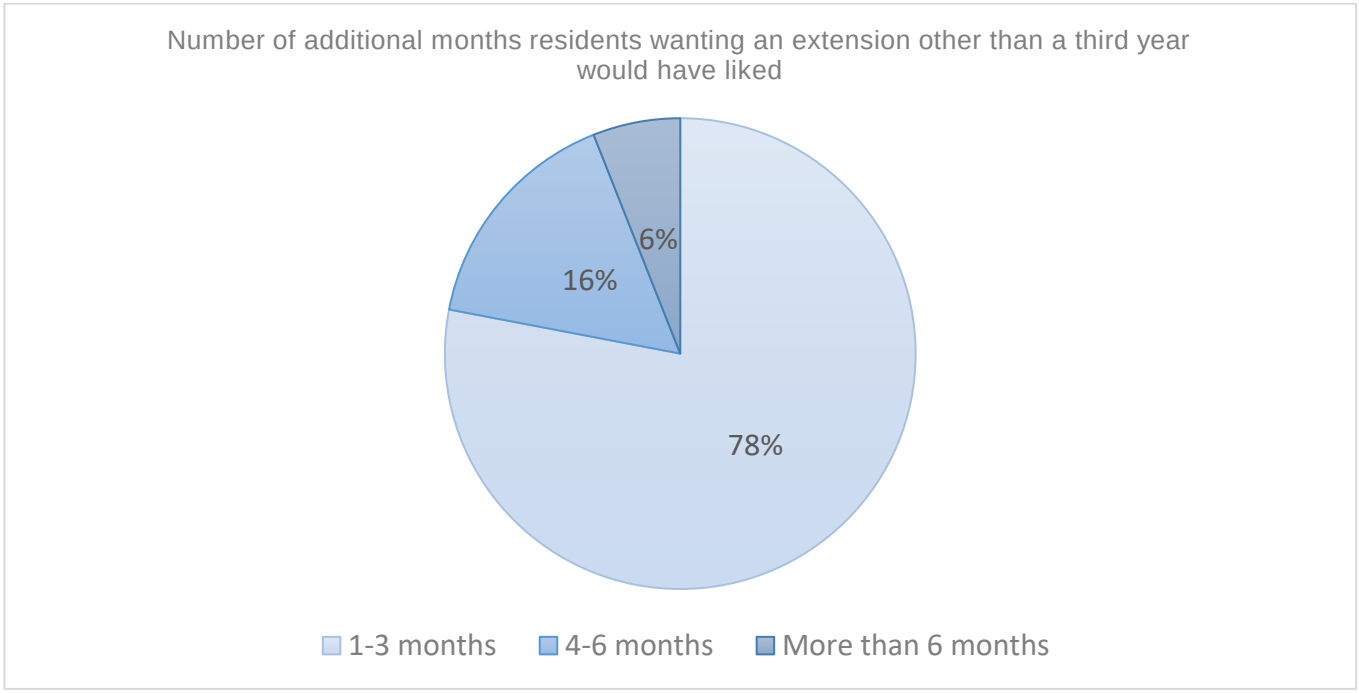
3.3 Optional rotations

We asked resident doctors about the frequency and relevance of optional rotations. The majority (56%) felt they had not performed enough such rotations. In all, 81% would have liked to carry out more (Figure 6). Of that number, 45% would have preferred to choose their optional rotations after obtaining a position in a regional physician resource plan (PREM).

Finally, 71% of resident doctors completing their family medicine residency would have preferred to choose extensions of training after their 2-year residency, even though that would have delayed their start of practice. Of that group, 78% would have liked to have 1-3 months of additional rotations, 15.6% 4-6 months, and 6.4% more than 6 months (Figure 7).



Responses received: 208
Question ignored: 6



Responses received: 141
Question ignored: 6

In conclusion, resident doctors were asked their level of satisfaction with family medicine residency, rating between 1 and 10, where 10 is the best score. Their average rating was 7.3/10.

4. Wellness Survey and FMU Tour

For the FMRQ, resident physicians' wellness is a priority. In 2017, a survey [17] of 947 resident doctors in all specialties highlighted the sad fact that 54.8% presented burnout symptoms, defined as a state of extreme physical, mental and emotional fatigue brought on by the presence of chronic work-related stress. Of all the factors suggested in the poll, workload is by far the main source of stress for the largest number of resident doctors (31.7%), followed by looking for a PEM-PREM (13.6%), and exams, and reconciling work and personal life (12.8% each). [17] This survey, while conducted on all specialties, sets out a real problem with residency in Quebec and points to possible solutions for enhancing residency.

A review of FMU Tour reports showed five positive points coming up very frequently. The first concerned flexibility of the curriculum. Resident doctors appreciated any kind of personalization of their residency, whether half days of exposure in specific domains or additional optional rotations. Residents lucky enough to perform patient management in line with their interests and to have personalized instruction stressed their satisfaction. Finally, a number of them mentioned the possibility of performing extensions of training after residency as a way of personalizing their curriculum.

The second point was the schedule. Resident doctors appear to prefer a residency with a longitudinal curriculum, as that fosters consolidation of learning. Also, it is important for requesting leave to be a simple matter, and for there to be openness to altering schedules. They value compliance with the collective agreement. Resident physicians also want to have time set aside in their schedules for the FMU's administrative tasks, as those take up a lot of their time.

The third point was FMU administration. Resident doctors want to work with an easily reachable assistant who shows understanding toward them. They appreciate it when orientation at the start of residency takes place over several days, so they can get used to their new tasks. Site cleanliness and equipment also affect their morale, and most prefer to have access to electronic medical records from home. The hospital's proximity to the clinic is seen as an advantage, as well as being able to follow their own patient cohort.

The fourth point was wellness. The atmosphere in an FMU has a major impact on how their residency is appreciated, and social activities are a way of achieving that. When their autonomy is fostered, resident physicians feel more confident. They appreciate twinning between juniors and seniors at the start of residency.

The fifth and final point concerned the competencies of the staff physicians in the FMU, intrinsically associated with wellness. Resident doctors expect their evaluations to be impartial and fair, but unfortunately that is not always the case. They cannot feel comfortable in a setting where the slightest error can lead to major consequences, whereas residency is supposed to be a period of learning. Openness, availability, and empathy are qualities resident physicians want to see in faculty members. Finally, when FMU staff physicians have experience of varied practices and when a host of other health professionals are on-site, residents feel they acquire more knowledge and confidence.

5. Discussion

5.1 Preparedness for practice and care areas

As mentioned above, the areas of activity for which resident doctors feel the least confident by far are Emergency and Acute Care. What is surprising is that, despite these findings, when they are asked for recommendations for improving preparation for practice, only a minority propose adding more mandatory rotations in those two areas.

The other major area for improvement is the administrative aspect and managing a medical practice, noted by 39.7% of resident doctors and 22% of FMU directors. Additional training on non-medical aspects of the start of practice, including management, permit applications, malpractice insurance, and billing would be most helpful.

These findings are interesting, because they dovetail with some of the research conducted outside Quebec. In fact, the Irish study [5] by Dowling et al mentioned that resident doctors had appreciated a longer residency when it offered greater exposure to administrative tasks, among other things. Similarly, the University of British Columbia study [15] by Jewell et al mentioned that the CanMEDS competency least well mastered is management, while scholarship and medical expertise were quite well mastered. They rightly pointed out that resident physicians were asking for more exposure in specific domains, such as Dermatology, Rheumatology, Sport Medicine, Gynecology, and Ophthalmology. They proposed providing more support for doctors at the start of practice.

5.2 Third year and extension of residency

The addition of a mandatory 3rd year is far from enjoying a consensus: 51% of resident doctors and 62.5% of FMU directors are against it, while 49% of residents and 37.5% of FMU directors are in favour. The opposition of doctors already extending their residency cannot be ignored. It would be ill advised to take a position in favour of mandatory extension when even resident physicians already extending their residency are against it.

It is interesting to note that the arguments put forward in favour of a 3rd year of residency are similar whether they come from resident doctors or FMU directors, and what has already been expressed by the Canadian medical profession for the past 10 years. Among other arguments are increased clinical exposure, perfecting tasks specific to practice, and increasing confidence for becoming an autonomous physician. Nevertheless, a larger proportion of those polled came out against a mandatory 3rd year. Their arguments fall into two themes: the pressure associated with learner status, and the addition of rotations with no benefit for their practice. As noted in the survey on resident doctors' wellness conducted by the FMRQ in 2017, [17] more than half of residents present burnout symptoms. This aspect must clearly be improved before adding a year is considered, as that could change resident physicians' responses concerning a 3rd year. Residents against a mandatory 3rd year mentioned that additional rotations would not be beneficial for their practice, a concern shared by FMU directors. After all, resident doctors do well on the CFPC's exams, and the CFPC itself mentioned in its 2012 report [13] that training of a minimum of 24 months was adequate.

FMU directors, as well as the Director of Professional Development at the *Fédération des médecins omnipraticiens du Québec* (FMOQ) in 2009, [11] noted the enormous administrative challenges associated with the introduction of a 3rd year. Concerns as to the number of sites and supervisors were mentioned by the faculties, while the FMOQ pointed to fears of shortages of practising physicians, a view likely shared by the MSSS. Finally, FMU directors and the CFPC [13] conceded that resident doctors learn at different paces and that some will require more than 24 months' training to attain the competencies required for practice; it is important that they should have access to it.

An alternative to a 3rd year, and no doubt a more realistic one for the healthcare system, would be the addition of non-mandatory optional rotations after the 24 months of training. Close to three quarters of resident doctors responding to the FMRQ survey would have liked to have additional months of optional rotations after the end of their residency, and for most of them that would have meant less than 3 months. This option was also viewed enthusiastically by FMU directors, three quarters of whom would be prepared to supervise for that type of additional training.

Nor should one forget existing programs that allow for learning to be extended, whether through registration in a Category 1 or 2 Enhanced Skills program organized by a university site, or through the addition of an extension of training with the support of the recruiting establishment. Enhanced Skills programs (R3 and R2B) are well known, and popular, but the number of places is limited. The MSSS's customized extension of training program is much less popular, among other things, because it has not been around long and receives little publicity.

In view of resident doctors' clear interest in additional training, it would be helpful to make it more accessible and promote it more. In our view, Category 1 or 2 Enhanced Skills programs fulfil a different role than the extensions of training offered by the MSSS, particularly the Emergency Medicine (EM3) program, which very often leads those doctors to a practice focussed on Emergency. Their purpose is to meet specific secondary needs. That said, the research conducted by Green et al [10] shows that, on the contrary, apart from Emergency Medicine, the resident doctors who do the most training have a more diversified primary care practice. So these Enhanced Skills programs should not limit access to optional rotations toward the end of residency, as such rotations help hone competencies in line with practice.

5.3 Flexibility of residency

An idea that keeps on coming back with family medicine residents is curriculum flexibility. The topic is constantly mentioned on the FMU Tour. The survey on resident doctors completing their residency revealed the same thing. In fact, four out of five residents would have liked more optional rotations during their residency. Even more interestingly, 31.6% of resident physicians said that would be the most important recommendation for becoming more confident on starting practice. Moreover, that view is shared by resident doctors in the USA. [7][8]

We have already addressed the possibility of adding months of optional rotations at the end of residency, an excellent way of personalizing residency. Existing optional rotations during residency are another possibility. Although it was mentioned above that resident doctors would have preferred to choose their optional rotations after obtaining a PREM, it should be noted that not everyone wants that. It could be hypothesized that, at the start of residency, doctors do not necessarily know the kind

of practice they will be heading for. So optional rotations allow them to explore different possibilities, or help them obtain a compliance notice in the region where they want to practise. It is interesting to see how McGill University's program offers the possibility of making optional rotation choices in a certain very specific domain, such as Acute Care, in an established framework while on certain mandatory rotations.

Another way of personalizing residency appreciated by resident doctors is the transformation of days, weeks, or even call duty periods late in residency so as to meet specific needs with a view to their practice. We feel this should be possible in all family medicine programs in Quebec.

5.4 Wellness day-to-day

Obviously, resident doctors' wellness is an FMRQ priority. Indeed, several years ago we set up a committee entirely devoted to this important topic—the Resident Wellness Committee (RWC). The survey conducted by that committee in 2017 [17] highlighted the problems of burnout experienced by residents. Meetings with the different authorities, but above all discussions on the FMU Tour, led us to possible solutions for dealing with problems of burnout in family medicine.

Resident doctors need time dedicated to administrative tasks in the FMU, otherwise this can become cumbersome and contribute to burnout. They also mentioned that compliance with the collective agreement is essential, as it establishes clear benchmarks so the number of call duty periods and days worked is safe. Resident physicians pointed out that wellness in the FMU depends on the atmosphere, and that social activities organized among peers contribute greatly to that. Fair evaluations, openness, and FMU faculty availability also play an essential role in wellness.

An educational psychology study [20] by Radel et al showed that students who feel faculty are working with pleasure and enjoyment will not only gain motivation and pleasure in life, but will also transmit that motivation and pleasure when the time comes to teach in their turn. But forcing a demonstration of positive emotions would not have the same benefits, according to Wang et al. [21] It is common to transform one's emotions to meet the expectations of the training site. This practice is associated with a higher rate of faculty burnout. By contrast, a genuine expression of emotions felt, whether positive or negative, is associated with a higher level of wellness. So we should attach importance to the wellness of the doctors supervising, as that will necessarily be conducive to medical residents' wellness.

Conclusion and recommendations

We observe that several subjects divide both resident doctors and Quebec's Family Medicine programs. The mandatory 3rd year of residency generates the most debate. Resident physicians believe that at the end of their postgraduate education, they will feel confident to start practising family medicine in Quebec. That view is shared by the programs. Certain activities, such as Emergency and Acute Care, could be enhanced in the programs. The same applies to training on the manager's role. Resident doctors feel the need for better personalization of their residency to prepare them for practice, through optional rotations near the end of their residency, and greater flexibility in the curriculum. Finally, it is essential that more importance be attached to Quebec resident physicians' wellness, in order to reduce burnout symptoms, which are detrimental to learning.

Here, therefore, are 10 recommendations:

1. **That the addition of at least three months of non-mandatory optional rotations after the 24 months of training be more accessible and that the procedure be less complex for all resident doctors.**
2. **That the variety and availability of those rotations not be limited because of existing Enhanced Skills programs, as they play a different role.**
3. **That the FMRQ and the Family Medicine programs publicize additional training programs, including Enhanced Skills programs, and more particularly the MSSS's customized extension of training program.**
4. **That a mandatory 3rd year not be currently implemented, as there are not sufficient arguments to warrant it in view of the logistical challenges it would involve and the divided opinions of resident doctors and the medical faculties.**
5. **That a mandatory 3rd year be the subject of periodic consultations as the complexity of medicine and family physicians' role evolve, as well the population's needs.**
6. **That the Family Medicine programs promote flexible residency through more numerous optional rotations and customized days toward the end of residency.**
7. **That resident doctors' wellness be fostered through compliance with the collective agreement, social activities, and a balanced schedule including time devoted exclusively to administrative tasks.**
8. **That greater value be attached to the profession of teaching physician, so as to foster a pleasant atmosphere conducive to fair, helpful supervision.**
9. **That management training be better integrated into the programs, covering among other things the non-medical aspects of starting out in practice, and billing.**
10. **That the programs increase exposure in less well-mastered domains of care, namely, Emergency, Acute Care, Pediatric Follow-up, Peri-natal Care, Health of Populations at Risk, and Locomotor System.**

Appendix 1: Literature Review–Canada and Elsewhere

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To answer the questions raised by the Academic Affairs Committee – Family Medicine (CAP-MF), we conducted a PubMed search on January 30, 2020 using the following MeSH terms: *clinical competence, family practice/education* and *time factors*. The search yielded nine articles, which we talk about in the following sections. We also consulted works dealing with the Triple C Competency-based Curriculum, length of residency, and the role of the family physician available on the College of Family Physicians of Canada (CFPC) website.

International Perspectives

The PubMed search we conducted yielded interesting results with respect to what is being done elsewhere in the world. In fact, in almost all Western countries, the length of family medicine residency is a minimum of 3 years. For instance, England and France offer a 3-year residency, while Australia and New Zealand have a 4-year program. [2]

Since the 1990s, family medicine residency programs in the USA have been 3 or 4 years in length. The University of Tennessee [4] offered some students the chance to combine the 4th year of their pre-doctoral (MD) studies with the 1st year of family medicine residency, for a total of 6 years' training for a family physician rather than the 7 years usually required. They found that residents in the accelerated program performed as well on the exams as regular residents, but most of the time these residents were highly involved (chief residents, future authors of journal articles, and Armed Forces physicians). This study is helpful, because it looks at training comparable to that given in Canada, with 4 years of pre-doctoral training and 2 years of family medicine residency. So one could infer that family medicine residency training of 2 years' duration (for a total of 6 years' training), in the early 21st century, is completely adequate for some residents.

There is also a 2009 Irish study [5] which compared the move by family medicine residency from 3 to 4 years in the Republic of Ireland, where it already takes 5-6 years of medical studies before starting family medicine residency. The study, involving 40 respondents, concluded that the 4th year of residency was generally appreciated by residents, since it brought with it a variety of exposures to specialty clinics. The additional year was felt to be less pressurized than previous years, residents felt more confident and ready to enter independent practice at the end of the 4th year of training, and learned more about the business aspects of general practice. Although the study involved quite a small number of residents, we can wonder whether adding a 3rd year of residency in Quebec would have the same beneficial effects.

Finally, a broader study is currently being carried out in the U.S. by a review committee of the American Board of Family Medicine. In fact, the mandatory 3-year duration established more than 40 years ago in the United States was based on expert opinions, and no one had really assessed it yet. [6] So the Length of Training Pilot (LOTP) [7] was set up, a forward-looking case-control study comparing 3-year with 4-year residency models in existing programs from 2012 to 2022, for which 475 residents had been signed up, to date. Preliminary results show that in about half of cases, length of training is not a factor influencing residents' choice. Otherwise, residents choose their residency

for location, work/life balance, and curriculum. One surprising study finding was that 4-year programs have a significantly lower proportion of women. The authors were unable to explain the causes of this, and other studies are needed to answer that question. The authors noted that residents want greater flexibility in their curriculum, and that is why half those doing a 4-year program chose to do so. Preparedness for independent practice will be the subject of an future report in the next few years.

Another U.S. study in 2017 looked at whether residents performing additional training feel 4-year training is to be preferred over the 3-year model. [8] They found that close to 20% of residents want to do additional training, and approximately three quarters actually do so. The desire for a 4th year was significantly associated with wanting to perform additional training, that is, 30% were in favour of a 4th year in the group wanting to do extended training, rather than 15% in the group not wishing to do additional training. The authors did not conclude that this meant residents do not feel prepared for the end of residency, but rather that some residents want to acquire specific knowledge or skills.

Comparing what is done elsewhere, it may be seen that, almost everywhere, there is questioning as to the length of time needed for training a family physician. Residents in the U.S. seem to want a more personalized residency. Moreover, various factors influence their choice of residency site, including the length of the residency. If there were widespread implementation of 3-year residency in Canada, steps would have to be taken to ensure that this did not reduce access to family medicine residency for women. It will be interesting to follow the LOTP data over the next few years.

Canadian Perspectives

As far back as 2009, the Canadian medical community was considering the usefulness of introducing a 3rd year of residency in a context where in most industrialized countries the length of postgraduate education is at least three years. [2] The arguments in favour generally put forward are: increasingly numerous and complex pathologies, growing numbers of therapeutic options, acquisition of new cross-curricular competencies, and the importance of interprofessional collaboration. The large number of call periods which cuts part of the exposure to basic rotations and the number of days' leave residents can take are other arguments in favour of bringing in an additional year. [9] It is also noted that interest in extensions of training is growing, since around a quarter of residents across Canada perform such training. [2] According to research by Green et al [10] on Ontario residents from 1996 to 2004, those completing a 3rd year were less likely to practise exclusively in an office. They had a more diversified practice, unless their additional training was in Emergency Medicine. In that case, they practised almost exclusively in Emergency.

On the other hand, those against a 3rd year note that residents have a high pass rate on Canadian certification exams, and the offer of extensions of training is already there. [11] They also point to the problem inherent in extending residency, namely, a short-term dearth of physician resources for primary care. It is observed that in countries that have extended the duration of residency, family doctors often deliver secondary care, making primary care the poor cousin of medical specialties. [11] There is also a fear of creating a specialty that is too vast, a general practitioner who would be asked to refer less often to other specialties, and that could discourage students from applying to family medicine. In the digital era, it would be easier than ever to ask specialists our questions to quell uncertainty at the start of practice. Others emphasize that there has to be learning from the 1st year

of practice onward that cannot be acquired with a 3rd year. [12] They also mention that the fact that elsewhere they have more years of training does not mean that is what Canada has to do.

In 2012, with the introduction of the Triple C Competency-based Curriculum, the CFPC reassessed the duration of basic training in family medicine. [13] The expert group concluded that "there remains a minimum required period of 24 months for the development of the residents' professional identity as a family physician." They also mentioned that some residents would need a longer training time, and that it was important that this should be accessible to them. In 2018, the CFPC defined the role of the family physician in Canadian society: "Working together, family physicians provide a system of front-line health care that is accessible, high-quality, comprehensive, and continuous." [14] They act in different settings, including primary care (offices), Emergency care, hospital care, home care, and long-term care. They are multi-skilled to meet the needs of the population, and they deliver patient-centred care.

More recently, in 2015, researchers at the University of British Columbia [15] questioned 23 family medicine residents online to find out how prepared they felt for practice, on the basis of the seven CanMEDS competencies. The findings are interesting, because the residents were very confident in their ability to communicate and to manage psychosocial problems, but only moderately confident in a broad range of medical and management areas in which they would have liked greater exposure. The researchers pointed out that, while the low-volume sampling meant the findings could not be generalized, further research was needed.

Finally, since 2018, the CFPC has been working on a project described as "one of the most important endeavours of the CFPC in several years," namely, the Outcomes of Training project. [16] Scheduled to be completed for the end of 2020, this project seeks to answer two essential questions: "Are we meeting the needs of our communities today? And, are we training doctors who are in a good position to meet the needs of our communities 10 years down the road in 2030?" At the same time, the CFPC wants to reassess family medicine residency as currently constituted, following consultation of informed partners, the university community, patients, regional health authorities, licensing authorities, and counterpart professional bodies in other countries. It is clear that the Canadian medical community is interested in the length of family medicine residency in this large-scale study. It will be interesting to follow the results of the CFPC's investigation of Outcomes of Training.

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