ORIGINAL ARTICLE

Why they leave: Small town rural realities of northern physician turnover

Jilayne Jolicoeur, BScN, MD[1], Lily DeMiglio, MD, PhD, CCFP[2], Lindsay Nutbrown R. Kin, Eliseo Orrantia, MD, MSc, FCFP, FRRMS[2]

[1]Northern Ontario School of Medicine, Thunder Bay, ON, Canada, [2]Division of Clinical Sciences, Northern Ontario School of Medicine, Marathon, ON, Canada

Correspondence to: Eliseo Orrantia, eorrantia@mfht.org

This article has been peer reviewed.

Abstract

Introduction: This study seeks to explore influential factors leading to physician turnover in designated Rural Northern Physician Group Agreement (RNPGA) communities in Northern Ontario, as well as physician's perceptions of the RNPGA contract and effects of the Northern Ontario School of Medicine (NOSM) on physician retention in these communities.

Methods: Twelve qualitative semi-structured interviews were completed with rural physicians who had RNPGA contracts within the past 5 years but had left their practice community. Data collected from recorded interviews were analysed using a thematic analysis approach in order to identify common themes.

Results: A range of factors influencing physician's decisions to leave were identified including lack of partner career prospects, burnout and lack of opportunities and amenities. Common challenges were sometimes also perceived as rewards of rural practice. The concern of lack of flexibility of the RNPGA contract was identified, as well as a perceived lack of presence of NOSM graduates in RNPGA communities.

Conclusion: A variety of factors influence physician turnover in RNPGA communities. These may be considered by communities hoping to inform recruitment and retention policy. Renewal of the RNPGA contract may require consideration for availability of part-time positions, increasing the number of physicians funded and incentivising physician wellness. NOSM may consider mandatory postgraduate programme placements in RNPGA communities and further development of infrastructure in these communities to improve learner, graduate and institutional engagement.

Keywords: Physician turnover, primary care, qualitative research, rural health services

Résumé

Introduction: Cette étude visait à examiner les facteurs qui influent sur le roulement des médecins dans les communautés désignées du groupe de médecins en milieu rural et dans le Nord (GMMRN) du Nord de l'Ontario, ainsi que la perception qu'on les médecins du contrat du GMMRN et des effets de l'École de médecine du Nord de l'Ontario (ÉMNO) sur la rétention des médecins dans ces communautés.

Access this article online

Quick Response Code:

Website: www.cjrm.ca

DOI: 10.4103/cjrm.cjrm_2_21

Received: 04-01-2021 **Revised:** 07-10-2021 **Accepted:** 27-10-2021 **Published:** 29-12-2021

How to cite this article: Jolicoeur J, DeMiglio L, Kin LN, Orrantia E. Why they leave: Small town rural realities of northern physician turnover. Can J Rural Med 2022;27:22-8.

Méthodes: On a réalisé 12 entrevues semi-structurées auprès de médecins ayant travaillé sous contrat avec le GMMRN dans les 5 dernières années, mais qui avaient quitté leur communauté de pratique. Une approche d'analyse thématique a servi à analyser les données recueillies dans les entrevues enregistrées afin de cerner les thèmes communs.
Résultats: Absence d'occasion de faire carrière avec un partenaire, épuisement professionnel et absence d'occasions et d'équipement font partie de la gamme de facteurs qui influent sur la décision des médecins de partir. Les difficultés courantes étaient parfois aussi perçues comme la récompense de la pratique rurale. Des préoccupations quant à la rigidité du contrat avec le GMMRN ont été soulevées, ainsi que l'absence perçue de diplômés de l'ÉMNO dans les communautés du GMMRN.
Conclusion: Une gamme de facteurs influencent le roulement des médecins dans les communautés du GMMRN. Les communautés qui espèrent éclairer le recrutement et la politique de rétention pourraient en tenir compte. Le renouvellement du contrat avec le GMMRN pourrait nécessiter d'envisager d'ouvrir des postes à temps partiel, d'augmenter le nombre de médecins financés et de favoriser le bien-être des médecins. L'ÉMNO pourrait envisager des placements dans les communautés du GMMRN dans le cadre du programme obligatoire de 2e cycle et le développement plus poussé de l'infrastructure dans ces communautés afin d'améliorer l'engagement de l'apprenant, des diplômés et de l'établissement.

Mots-clés: recrutement des médecins ruraux, rétention des médecins ruraux

INTRODUCTION

The effects of the rural–urban geographic maldistribution of physicians, although a global phenomenon, are especially prominent in Canada, with its large geographic area, widely distributed population and varied economic development.[1] In Northern Ontario, physicians who practise in rural areas are spread across over 800,000 km^2, resulting in vast medically underserved areas.[2] Successful recruitment and retention of generalist physicians are paramount to addressing physician shortages and subsequently improving healthcare provision.[3] There is a general understanding of the factors associated with recruitment and retention success, with previously identified influential factors for leaving well-established rural practice, including financial reasons, organisational challenges and partner preferences.[3,4] Physicians remaining in rural practice tend to achieve a balance between the challenges and rewards, whereby demanding aspects of rural practice are also perceived benefits.[5] Particular recruitment and retention interventions have been implemented in Northern Ontario including the development of the mission specific Northern Ontario School of Medicine (NOSM), and a specialised employment contract, the Rural Northern Physician Group Agreement (RNPGA). NOSM was created in 2005 as a government strategy to increase physician supply in rural Northern Ontario. NOSM trains students in over 90 health centres and hospitals across Northern Ontario on the basis that students educated in rural areas are more likely to establish practice there. It has been recognised as a major source of physicians recruited into northern community practice in accordance with the school's social accountability mandate.[2,6] While NOSM has been a driving force in improving recruitment and retention outcomes across the north, physician shortages continue to persist in many small rural and remote communities.[6] In 2020, in recognition of the ongoing human healthcare resource crisis, NOSM created a new Assistant Dean, Physician Workforce Strategy position with aims to improve support for rural and remote physicians.[7]

The RNPGA was created in 1996 with the goal of improving physician shortages in rural communities.[8] As a part of the RNPGA, physician designations are allocated by the Ontario Ministry of Health and Long-Term Care to select rural communities in need of physicians as determined by the Rurality Index for Ontario score.[9] Although physicians must sign a contract to participate in the funding model, they are not bound to fulfill a specific term by the government. Currently, there are 37 communities funded under the RNPGA agreement, which includes the majority of small rural communities in Northern Ontario. Despite the initial praise of the agreement, there is growing concern on behalf of the medical community that the contract has not accounted for the evolution of practice over the last several decades, citing

lack of adequate remuneration for emergency and inpatient care, financial disincentives for travel to rural communities, and lack of accommodation for role splitting.[8]

METHODS

Purposeful sampling was used to identify potential participants who had previously worked in a Northern Ontario community under an RNPGA contract, but had since left. They were then contacted by telephone or e-mail and invited to participate in one-on-one qualitative, semi-structured interviews.

Data analysis

Interviews were conducted by a research team member, transcribed by a second team member, and reviewed by both individually to ensure accuracy.[10] Two interview transcripts were then reviewed by all 4 team members and a comprehensive list of codes was developed iteratively using a thematic analysis approach.[11] All 4 researchers convened after independently coding two transcripts each at which time coded data were cross-referenced among team members to establish consensus and inter-rater reliability.[10] One researcher coded using Dedoose® data analysis software, while 3 team members manually coded data. Collapsed codes were combined with corresponding interview citations to validate grounding in the data.[10]

Qualitative rigor was established through the use of purposeful sampling, a standardized questionnaire, data triangulation, multiple data analysts, and the use of respondent quotations to illustrate each theme.[10]

This study was approved by the Lakehead University Research Ethics Board.

RESULTS

Participants

Interviews were conducted during a 7-month period between 2019 and 2020. Nineteen family physicians who had contracts in an RNPGA-designated community in Ontario within the past 5 years, but had left their rural practice community, were contacted to participate. Twelve took part in the study from 11 different communities. Two participants lived outside of the practice community during the study period. Nine participants were male. Years spent in the community of practice ranged from one to 27. One completed undergraduate and postgraduate education at NOSM, while the rest completed education elsewhere.

Personal challenges affecting retention

Personal challenges of rural northern practice and living were identified by participants as partner career, extended family, life plan, and community integration.

Partner career

Participants identified their partner's lack of career opportunities as a major influential factor in their decision to leave the community, making partner career prospects the most frequently cited and most heavily weighted reason for leaving. Lack of opportunities in significant others' field of interest led to partner and personal dissatisfaction with life in the community. One described her own frustrations with a perceived lack of reciprocity on behalf of the community in assisting her partner to secure employment: 'He is a very skilled worker. He has two degrees in university with significant job experience, and the community was unable to ever find job opportunities that would fit for him. Even when there [were] opportunities that came up, they were never offered.'

Extended family

Desire to be near extended family was described by participants as the basis of their decision to leave. Several participants cited an immediate family member's illness as the primary reason, while others expressed a fear of estrangement from extended family. One provided an example of the latter: 'We were a long way from both of our families... The less the kids recognized their family and the less we saw them, the more we felt guilty about it.'

Life plan

Several participants experienced major alterations or uncertainties in their future life plans related to family and career goals and reported this as an influential factor in leaving. One, who had

long-term intentions of rural practice elaborated: 'I was kind of at a transition point... That was my first job and... It's pretty easy for a rural community to turn from sort of supportive and nurturing to kind of oppressive and boring.'

Community integration

A sense of feeling isolated and unaccepted, leading to trouble finding meaningful community relationships emerged for some participants. One described a feeling of lack of belonging in the community, stating, 'The biggest problem I had was that you are always an outsider. You are never an insider.'

Professional support challenges affecting retention

Common challenges with professional support included issues with a lack of resources, team dynamics, and inherent disadvantages associated with the RNPGA contract.

Lack of resources

Participants frequently described a lack of human and non-human resources as a challenge of rural practice, although none cited this as a reason for leaving, and several believed that working with fewer resources had improved their diagnosis and management skills. New regional services such as Virtual Critical Care were praised but affirmed as not equivalent to inperson support. Lack of human resources seemed to contribute to a sense of isolation: 'There was nobody I could call if I was having a difficult time that would have more critical care skills than I [do]... There was nobody with formal advanced skills.' When referring to human resources in rural areas, one stated:

"Rural medicine is like: If you are rich, you are really rich, and it is easy to stay rich. But if you start to get poor, you just get poorer faster and faster. When things are going well, they sort of just chug along the way they are designed. But if it starts to go badly and you start to lose people, then it just snowballs".

Team dynamics

The importance of having supportive, reliable team members was emphasised, while poor team dynamics were cited as contributing to decisions to leave: 'Some personality clashes... Personal conflict that I had... Affected me quite badly. The power distribution was quite dysfunctional.'

Several participants discussed reduced team efficacy due to having colleagues who worked but did not live in the community.

Contract

Lack of flexibility of the RNPGA contract was cited as a reason for leaving: 'one of the difficulties about a contractual obligation such as an RNPGA is that it lays out what you are going to be doing for most of your life... There is not really room for part-time people.'

Professional experience challenges affecting retention

Burnout, the level of service demand and a sense of responsibility for outcomes in the community emerged as professional challenges.

Burnout

Burnout and work-induced stress were a major influential factor in decisions to leave and affected both professional and personal aspects of rural life. One lamented, '... You have to be able to walk away from your child in the middle of a sentence if something crazy happens. It was draining as hell.' Another elaborated:

> When communities are short staffed, there is just work to do, so you do it, and the more you do the more you feel capable of doing, so you just keep on adding things... And so you kind of get in that habit of working at very high levels of output, and then as you age, it changes, and you get tired.

Service demand

The majority of rural communities involved were short of physicians, never meeting their quota. Rural patients were described as being more medically complex and vulnerable, requiring more time to manage with less available staff: 'The work was heavy in terms of timing, degree of hours. I would put in probably 70 h a week plus call... There was a lot more work than any one individual wanted.'

Another participant described how professional demands affected his personal life: 'I was not home during the day at all. My wife was snow blowing all day long, and I got home quite late, would have something to eat, go to bed, get up and do the same thing.'

Responsibility

An unspoken social contract leading to a heightened sense of personal responsibility for health outcomes became emotionally challenging for some: 'Every once in a while... Something bad happens... And then you feel this sense of guilt and responsibility.'

Rural community lifestyle challenges affecting retention

Common challenges of community life were a lack of opportunities and amenities, travel, personal privacy issues, patient expectations, dual roles and physician status.

Lack of opportunities and amenities

Lack of community opportunities and amenities were the most frequently cited and heavily weighted factors for leaving. Participants perceived a lack of dependable childcare, education and sports-related opportunities:

> I wanted to be able to go swimming, or go to the gym, or go to a shopping centre, like basic-well not basic, but just things that some people take for granted. I was just feeling more and more that I wanted to live somewhere that if I had to go to (the pharmacy) at two in the morning for Benadryl, then I could do that.

Patient expectations, dual roles, personal privacy and status

Enhanced patient expectations of care, dual roles and lack of personal privacy emerged as challenges. Participants expressed the moral dilemmas of caring for friends and family members and feeling unable to escape being 'under a microscope.' Some avoided going out for fear of being approached by patients: 'I mean literally, you'd go and you'd be at the gas station, filling up your car, for example, and someone would say, 'Doc, what was my cholesterol like?' And that doesn't really upset you but, it's just-it's not right.'

In order to avoid being called into work during their vacation time, most participants felt they had to physically leave: '. The feeling on your chest as you drive away from the town, all of a sudden a weight you never knew was there, you can almost literally feel like it's coming off... All of a sudden you just go 'oh!' because you know they can't get ya (laughs).' Despite these inherent challenges, some participants reflected on the fulfilling nature of close community relationships.

Travel

Some participants maintained permanent addresses in nearby urban settings and would commute to work. The commute became a burden which ultimately led them to leave.

Northern Ontario school of medicine

Impact

Only one participant believed that NOSM has improved physician recruitment and retention in Northern Ontario since its inception. Many cited a lack of concrete statistics or firsthand experience to support the notion of NOSM's positive impact. Many felt that, while NOSM's initiatives may keep physicians in the North, they are not successful keeping them in the rural North.

> I know you know the quote that NOSM says 94% or 96% of their grads stay in the North, but [they] go to big cities, [they] don't go to the small towns. It's successful in keeping them in Sudbury, keeping them in Thunder Bay or Sault Ste. Marie but probably not the small towns as much.

Presence

Only a few identified the presence of NOSM residents or graduates in their communities. The remainder commented on the presence of medical students but expressed frustration that they were unable to teach NOSM residents or recruit new graduates: '... in the 5 years I was there... The only contact I had with NOSM was the 2nd-year students that would come... we had zero – I never saw a resident, and I never saw anyone be recruited from NOSM into those communities.'

Ease of engagement

Difficulty engaging in NOSM-related opportunities was attributed to geography, time constraints, workload and a perceived lack of relationship between NOSM and the practice community: 'I would have liked to have participated with the school a lot more… I could have offered more... My time didn't work well. I mean, how do you take time off to go teach or do research or do something?'

Another participant, who did not train at NOSM, described difficulties forming a working relationship with the school.

The double-edged sword

It is important to acknowledge the duality of the self-identified challenges, a theme described by the majority of participants, which emerged consistently through exploration of personal, professional, and community experiences. The sense of rural generalist practice being a 'double-edged sword', was used to express how, 'some of the things that one enjoys about a rural community are also part of the challenges.' One illustrated this concept when recalling an influential preceptor's view of practice with few resources: '... He talked about being the only person there, and the stress of that, but also the interesting parts... What it's like to not rely on technology and computed tomography scans and ultrasounds, and basically learning how to be a doctor with very little.'

DISCUSSION

Rural northern practice challenges encompass personal, professional and community factors. The most influential reasons for leaving RNPGA-designated communities are lack of partner career prospects, experiences of burnout and lack of amenities and opportunities. Many challenges align with previous research.[4,12-23] What leads one physician to leave and another to stay is likely a manifestation of their own balance of factors which exist as both rewarding and challenging aspects of rural practice, which here is illustrated as the 'double-edged sword' concept.[5]

There is no established literature on physician retention in RNPGA-designated communities. As described by participants, the lack of flexibility in workload and remuneration within the RNPGA contract presents challenges for individuals hoping to limit their workload. Allowing more flexibility for part-time positions would support those team members. Since the contract's development in 1996, it has not kept pace with new demands on physicians such as leadership for quality improvement and interprofessional collaboration, increased complexity of patients and teaching and service expectations. Increasing the number of physicians funded in the contract could better distribute demands, thus mitigating burnout. The RNPGA contract could incentivise physicians to reside in their community of practice to promote long-term retention, integration and team dynamics. Physician wellness initiatives and funding for travel to visit family as a part of the contract could help avoid burnout and bolster retention.

Hogenbirk *et al*. found that only 8% of physicians graduating with a NOSM undergraduate medical degree from 2011 to 2013 went on to practise in rural Northern Ontario.[24] Our study supports this finding. To date, there are no studies evaluating the impact of NOSM's undergraduate or postgraduate programming on physician retention specifically in RNPGA communities. In considering the perceived lack of recruited NOSM residents and staff, NOSM may consider initiating mandatory rural postgraduate rotations in small rural or RNPGA communities. NOSM may consider improving rural community infrastructure and awareness of teaching opportunities, thereby easing the physician engagement burden. These suggestions, based on study findings from NOSM's catchment area, may be applied to other medical education institutions.

Limitations

Selection bias may exist due to the purposive snowball approach in recruiting participants.[25] Furthermore, participants' recollection of their experiences is susceptible to recall bias.

CONCLUSION

Lessons learned from rural physician's experiences may be used to bridge the gap between physicians and the communities

hoping to retain them and ultimately lead to an improved balance of the challenges and rewards of rural practice.[26,27] This study provides key findings on rural physician retention in RNPGA communities, a phenomenon not previously studied, along with insight into these physicians' perceived effect of NOSM in their practice communities. This study's findings support those of previous research, identifying a broad range of factors affecting rural physician retention. The accompanying recommendations can be applied by patients, communities and physicians to address challenges and improve health equity in the rural North.

Financial support and sponsorship: This study was financially supported by NOSM Summer Student Research Grant, Northern Ontario Academic Medicine Association Academic Funding Plan Innovatin Fund 2018.

Conflicts of interest: There are no conflicts of interest.

REFERENCES

1. Pong RW, Pitblado JR. Canadian Institute for Health Information. Geographic Distribution of Physicians in Canada: Beyond How Many and Where. Ottawa, Ont: Canadian Institute for Health Information Institut Canadien D'information Sur la Santé; 2005. Available from: http://ra.ocls.ca/ra/login.aspx?inst=centennial and url=https://www.deslibris.ca/ID/219728. [Last accessed on 2019 Aug 02].
2. Wenghofer EF, Hogenbirk JC, Timony PE. Impact of the rural pipeline in medical education: Practice locations of recently graduated family physicians in Ontario. Hum Resour Health 2017;15:16.
3. Hancock C, Steinbach A, Nesbitt TS, Adler SR, Auerswald CL. Why doctors choose small towns: A developmental model of rural physician recruitment and retention. Soc Sci Med 2009;69:1368-76.
4. Parlier AB, Galvin SL, Thach S, Kruidenier D, Fagan EB. The road to rural primary care: A narrative review of factors that help develop, recruit, and retain rural primary Care physicians. Acad Med 2018;93:130-40.
5. Hays R, Wynd S, Veitch C, Crossland L. Getting the balance right? GPs who chose to stay in rural practice. Aust J Rural Health 2003;11:193-8.
6. Mian O, Hogenbirk JC, Warry W, Strasser RP. How underserviced rural communities approach physician recruitment: Changes following the opening of a socially accountable medical school in northern Ontario. Can J Rural Med 2017;22:139-47.
7. Northern Physicians and Workforce Strategy Focus of Two New NOSM Roles | NOSM. Available from: https://www.nosm.ca/2020/02/20/northern-physicians-and-workforce-strategy-focus-of-two-new-nosm-roles/. [Last accessed on 2020 Oct 05].
8. Glauser W. Outdated contract for rural doctors is affecting patient care. CMAJ 2018;190:E605-6.
9. Government of Ontario M of H and L-TC. Areas of High Physician Need - Health Care Professionals - MOHLTC. Available from: http://www.health.gov.on.ca/en/pro/programs/highneed/. [Last accessed on 2019 Aug 09].
10. Baxter J, Eyles J. Evaluating qualitative research in social geography: Establishing 'Rigour' in interview analysis. Trans Inst Br Geogr 1997;22:505-25.
11. Fereday J, Muir-Cochrane E. Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. Int J Qual Methods 2006;5:80-92.
12. Myhre DL, Bajaj S, Jackson W. Determinants of an urban origin student choosing rural practice: A scoping review. Rural Remote Health 2015;15:3483.
13. Ellsbury KE, Baldwin LM, Johnson KE, Runyan SJ, Hart LG. Gender-related factors in the recruitment of physicians to the rural Northwest. J Am Board Fam Pract 2002;15:391-400.
14. McGrail MR, Russell DJ, O'Sullivan BG. Family effects on the rurality of GP's work location: A longitudinal panel study. Hum Resour Health 2017;15:75.
15. Lu DJ, Hakes J, Bai M, Tolhurst H, Dickinson JA. Rural intentions: Factors affecting the career choices of family medicine graduates. Can Fam Physician 2008;54:1016-7.e5.
16. Cutchin MP. Community and self: Concepts for rural physician integration and retention. Soc Sci Med 1997;44:1661-74.
17. Swayne A, Eley DS. Synergy and sustainability in rural procedural medicine: Views from the coalface. Aust J Rural Health 2010;18:38-42.
18. Alper S, Tjosvold D, Law K. Conflict management, efficacy, and performance in organizational teams. Pers Psychol 2012;53:625-42.
19. Rassolian M, Peterson LE, Fang B, Knight HC Jr., Peabody MR, Baxley EG, *et al*. Workplace factors associated with burnout of family physicians. JAMA Intern Med 2017;177:1036-8.
20. Pathman DE, Williams ES, Konrad TR. Rural physician satisfaction: Its sources and relationship to retention. J Rural Health 1996;12:366-77.
21. Cameron I. Getting real about rural physicians. CMAJ Can Med Assoc J 2012;184:988.
22. Gardiner M, Sexton R, Kearns H, Marshall K. Impact of support initiatives on retaining rural general practitioners. Aust J Rural Health 2006;14:196-201.
23. Eley D, Young L, Shrapnel M, Wilkinson D, Baker P, Hegney D. Medical students and rural general practitioners: Congruent views on the reality of recruitment into rural medicine. Aust J Rural Health 2007;15:12-20.
24. Hogenbirk JC, Timony PE, French MG, Strasser R, Pong RW, Cervin C, *et al*. Milestones on the social accountability journey: Family medicine practice locations of northern Ontario school of medicine graduates. Can Fam Physician 2016;62:e138-45.
25. Sedgwick P. Snowball sampling. BMJ 2013;347:f7511.
26. Goertzen J. The four-legged kitchen stool. Recruitment and retention of rural family physicians. Can Fam Physician 2005;51:1181-3, 1184-6.
27. Cameron PJ, Este DC, Worthington CA. Professional, personal and community: 3 domains of physician retention in rural communities. Can J Rural Med 2012;17:47-55.