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Survey of rural family physician—obstetricians in Southwestern Ontario

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Introduction: The objectives of this paper are 1) to analyze the characteristics of rural physicians who currently practise obstetrics, their training background and the environment in which they work and 2) to develop strategies to sustain rural obstetrical services.

Methods: Information was gathered using both a survey and brief individual interviews.

Participants: A survey was sent to 56 family physicians who currently practise obstetrics, as well as those who had stopped within the past 2 years, in the Southwestern Ontario communities of Clinton, Goderich, Hanover, Kincardine, Markdale, Mount Forest, Palmerston, Walkerton, Wiarton and Wingham.

Results: Forty-four physicians responded to the survey. Results indicate that current obstetrical training programs are lacking in the following areas: the provision of positive role models/mentors, rural placements, experience in complex decision-making, and instilling confidence in graduates. Physicians appear to be internally motivated to practise obstetrics, claiming it is important to their professional goals and personal values. Support systems of colleagues, nursing staff, administration, family and friends, were identified as vital components of a successful obstetrical program.

Conclusion: Educators are advised to identify students with an internal motivation to practise rural obstetrics early in their medical training and provide them with mentors, rural placements, confidence and experience in complex decision-making.

Introduction : Ce document vise à 1) analyser les caractéristiques des médecins ruraux qui pratiquent actuellement l'obstétrique, leur formation et leur environnement de travail et à 2) élaborer des stratégies afin de maintenir les services obstétriques en milieu rural.

Méthodes : On a réuni de l'information en distribuant un questionnaire et en procédant à de brèves entrevues individuelles.

Participants : On a envoyé un questionnaire à 56 médecins de famille qui pratiquent

actuellement l'obstétrique, ainsi qu'à ceux qui ont cessé de le faire depuis deux ans, dans les localités suivantes du sud-ouest de l'Ontario : Clinton, Goderich, Hanover, Kincardine, Markdale, Mount Forest, Palmerston, Walkerton, Wiarton et Wingham.

Résultats : Quarante-quatre médecins ont répondu au sondage. Les résultats indiquent que les programmes courants de formation en obstétrique présentent des lacunes dans les domaines suivants : prestation de services d'exemples ou de mentors positifs, stages en milieu rural, expérience de la prise de décisions complexes et instillation de la confiance chez les diplômés. Les médecins semblent avoir la motivation personnelle nécessaire pour pratiquer l'obstétrique, affirmant que c'est important pour leurs objectifs professionnels et leurs valeurs personnelles. Les systèmes d'entraide constitués de collègues, de membres du personnel infirmier, de l'administration, de la famille et des amis sont considérés comme des éléments vitaux d'un programme d'obstétrique couronné de succès.

Conclusion : On conseille aux éducateurs de repérer dès le début de leur formation en médecine les étudiants qui ont la motivation personnelle nécessaire pour pratiquer l'obstétrique en milieu rural et de leur fournir des mentors, de leur organiser des stages en milieu rural, de leur permettre de prendre confiance en eux et de leur apprendre à prendre des décisions complexes.

Introduction

In 2000—01, 88% of Canadian mothers surveyed confirmed that they had received prenatal care from physicians.[1] Although family physicians (FPs) reportedly attended an increased number of deliveries in 2000 (an average of 41 deliveries compared with 30 in 1986), data suggest that FPs' share of deliveries has fallen (attending 39% of vaginal births in 2000 compared with 44% in 1996).[1] This reflects the fact that fewer FPs are providing obstetrical services (OBS). For example, 31% of FPs billed for OBS in 1989 and only 19% in 1999.[1]

Rural access to OBS is important: in Canada, 9.5% (28 755) of deliveries and 6.9% (4292) of cesarean sections occurred in rural settings in 1995—96.[2] Unfortunately, few physicians provide OBS in rural areas: only 9.1% of physicians practised in rural communities in 2001 and, of these, only 35% provided intrapartum care.[3] In Ontario, that number is just 25%.[2] Two decades ago, the inclusion rate for obstetrics was 85%.[4] However, it is interesting to note that a 2001 study revealed that rural FPs were more likely to include obstetrics in their practice (27%) than urban FPs (11%).[1]

OBS are in continual decline in rural communities. A survey of northern Ontario community hospitals revealed that only 3 of 39 communities had no OBS in 1981; however, by 1999, 15 of the 39 communities studied did not provide OBS.[1] The decline in obstetric providers has been examined repeatedly, and, consistently, rural physicians are shown to lack support from a variety of levels.[5-12] These include anesthetic, surgical, and nursing backup, time off, skills training, practice structure, and financial compensation. Suggestions for sustaining rural OBS frequently call for changes in the above parameters. For example, a 2001 study revealed that physicians who are members of group practices are more apt to practise obstetrics in comparison to those working in individual practices (23% v. 11%).[1]

The consequences of inadequate rural obstetrical care have also been studied extensively. Communities that do not offer OBS have lower birth volumes and worse perinatal outcomes (measured by infant mortality, complication rate, cost, and satisfaction).[13-16] Rates of physician loss are also higher in these areas.[5,14,17] Canada's FPs are also getting older: a 2001 study revealed that 46% of all FPs in Canada are over the age of 45 and only 4% were under the age of 30.[1] Additionally, despite initial intentions to practise obstetrics, fewer graduates actually go on to do so. According to a 2002 study, 52% of residents surveyed initially planned to practise obstetrics, however, by the completion of their training the percentage had fallen to 17%.[1]

The present study seeks to understand the characteristics of rural physicians who currently practise obstetrics, their training background and the environment in which they work in the hope that it may help us understand how to anticipate and sustain the services required for successful obstetric care in rural areas.

Methods

Information for this study was gathered using 2 modes: a survey and brief individual interviews. Survey questions obtained demographic data and information on physicians' educational experiences, professional obstetrics experiences, personal attitudes toward practising obstetrics, and concerns regarding the future of obstetrics. There were 78 questions, including 1 short answer question, 2 questions in which respondents were asked to rank disadvantages and advantages associated with obstetrics, 7 fill-in-the-blank questions, 19 multiple-choice questions, and 49 questions to be answered using various adaptations of a 5-point Likert scale. A draft of the survey was pre-tested on physicians not involved in our study in order to examine the clarity and effectiveness of the survey's design and content.

Questions that used a Likert scale were examined by grouping the ends of the scale; that is, answers 1 and 2 in one group, answers 4 and 5 in another, and answer 3 in the third group. These 3 groups could then be compared. Due to the small sample size, we proposed that differences >75% among these 3 groups be considered highly significant.

In July 2002, surveys were sent to all FPs who currently practised obstetrics, as well as those who had stopped within the past 2 years, located in the following rural Southwestern Ontario communities: Clinton, Goderich, Hanover, Kincardine, Markdale, Mount Forest, Palmerston, Walkerton, Wiarton and Wingham. Fifty-six surveys were distributed. Before the survey was mailed, a letter was sent to all study participants; it notified them of the forthcoming survey, provided an explanation of the survey and information on response submission. Physicians were given 1 month to complete the survey; those who had not done so by this time received 2 subsequent letters in 2-week intervals requesting their survey results.

Data on the professional environment of each hospital were obtained from the Chief of Staff of Obstetrics at each hospital. Short, one-to-one telephone interviews were subsequently obtained by our research assistant (A.V.).

Results

Forty-four completed questionnaires were returned; this represented a 78% response rate.

Based on data from various sources,[3,18,19] our surveyed population is estimated to represent 20% of all rural physicians practising obstetrics in Ontario and therefore is responsible for approximately 14% of the deliveries performed by rural Ontario physicians in 2001. Between 2000—02, the total body of physicians providing OBS in the area surveyed reported a net gain of 1 physician (Fig. 1). As of July 2002, 49 (37%) of the surveyed physicians provided OBS and had performed 843 deliveries in 2001 (Fig. 2).

Hospital demographics

Thirty percent of the 10 hospitals surveyed reported they always had available cesarean section backup, 40% reported they did sometimes, and 30% had none at all. Fifty percent reported they always had available anesthesia backup, 30% sometimes, and 20% had none at all. Seventy percent used a shared on-call system for OBS and 10% reported they did sometimes. Fifty percent offered on-call stipends (Fig. 3). The majority of hospitals are within 1 hour's driving time of 24/7 obstetrical consultation facilities.

Overview of physician characteristics

Of the respondents, 32/44 (72.2%) were male. The average age of respondents was 44.3 years. Fifty-nine percent were age ≥46 (Fig. 4). The majority of those surveyed had a life partner (79.5%). Those who did not, were equally represented by both sexes. The career demands of respondents' life partners varied; 27.3% worked full time, 42.4% part time and 30.3% did not work outside the home. Sixty-one percent had an average of 2.6 children still living at home. It is noted that there were no significant differences between male and female survey responses.

Respondents reported an average of 17.7 years since the completion of residency training and an average of 3.1 months of Ob/Gyn training. Many had not received any rural obstetrical experience (57.9%), and those who had, reported an average of 2.2 months of training. Sixty-five percent had received CCFP training, 9.1% were trained in cesarean section and 75% had pursued additional obstetrics training such as ALSO (Advanced Life Support in Obstetrics), ALARM (Advances in Labour and Risk Management) or a 3rd-year residency.

Although respondents' training experiences were variable, only 25%—36% were very satisfied with their program, whether it was tertiary or community based. The same percentage were very satisfied with role modelling and/or their ability to have been involved in complex decision-making around obstetrical issues during their training program.

Respondents' level of confidence after training varied, as did their belief that their training program offered realistic experiences. Their opinions on whether medicolegal issues were well taught and whether they learned the art of balancing obstetrics with a full rural practice were variable.

In relation to their current obstetrical environment, 74% reported some experience with a shared-call system. Their opinions on the value of on-call stipends were not consistent. In order for their obstetrics program to continue, 92% reported that they will need between 3 and 6 doctors. In terms of their attitudes toward change in their professional environment, 48% reported that they had been involved in some form of a new obstetrical program in their own hospital over the past 5 years. All of the 48% felt the programs had been successful in one form or another, and 70% reported that the success was achieved with a reasonable amount of risk and commitment.

In terms of personal support systems, 46% of respondents had a life partner or a colleague with whom they can share their problems and frustrations. However, 7.3% stated they have no one with whom to share problems or concerns. In general, the surveyed physicians were more worried about stress and malpractice issues than finances. The majority of respondents continue to practise obstetrics out of a desire to contribute to their community.

Significant findings

Of the 78 questions, 11 produced responses where 75% or more of respondents were in agreement and thus were considered highly significant. In the section pertaining to training, 88% identified the importance of role models (Fig. 5). Eighty-two percent said that training in community hospitals was very important (Fig. 5). Eighty-two percent also commented on the importance of being involved in complex decision-making during their residency training and not just being involved in the process of "catching a baby" (Fig. 5). Although respondents acknowledged the importance of these training features, many noted that their training program did not provide adequate experience in the aforementioned areas.

With respect to their actual practice experience, 4 issues were reported as being highly significant. Ninety-two percent agreed on the importance of well trained obstetrical nursing staff (Fig. 5). Eighty-six percent depended on understanding and supportive colleagues, and 80% supported some concept of shared call (Fig. 5). Finally, 78% reported that they have

supportive, understanding colleagues.

Why are respondents delivering babies?

Ninety-five percent reported that obstetrics remains very important to their professional goals. Additionally, 88% reported that practising obstetrics is very important to their own personal values and ethics.

What have they learned from the past and what do they project about the future?

Unfortunately, 78% of physicians surveyed reported that practice demands outside of obstetrics have increased over the last 5 years (Fig. 6). Sadly, 82% of respondents predict that the future of obstetrics in rural communities will be significantly worse in 5 years (Fig. 7).

Discussion

Data collected regarding respondents' age and gender did not reveal a significant trend. However, in comparison to national data collected in 2001, participants in the current study included a higher volume of physicians age ≥46 (59%) as well as a smaller number of physicians age ≤35 (13.7%). National data reported almost 30% of Canadian physicians were age ≥45, and almost 25% were age ≤35.[3] Also, data provided little correlation in relation to respondent's marital status, the professional demands of their partners, their number of children, and their practice of obstetrics.

The majority of respondents agreed that their obstetrical training was inadequate on many levels. Many of the educational shortcomings identified by respondents were consistent with those mentioned in Godwin and colleagues' 2002 study.[20] According to that study, physicians who have recently graduated are less likely to include obstetrics in their practice. This may be due to insufficient exposure and skill development because residents who receive their obstetrical training in tertiary care centres report their training as inadequate for independent practice in rural environments.[20]

Data collected regarding the availability and importance of positive role models during obstetrical training is unique to the present study. Although 88% of respondents noted that role models are important during obstetrical training, only 23%—36% were satisfied with the role models available during their training experience. Such data indicate that increased exposure to positive FP role models during obstetrical training would be beneficial to students.

More involvement in complex decisions and greater experience in rural environments may increase confidence levels and present rural medicine as a more attractive alternative. Finally, if recent studies suggest that many students are making decisions pertaining to obstetrics early in their medical training,[1] educators are advised to target this cohort of students early in order to offer them increased support, training and experience.

In terms of the current level of community commitment among FPs, it is interesting to consider that nearly 66% of FPs in the Yukon and Northwest Territories provided intrapartum care in comparison to only 12% of Ontario FPs in 2001.[3] Future research may serve to determine if such divergent percentiles are related to a differing sense of community, societal values, or lifestyle issues.

Factors associated with successful and sustainable obstetric care include reliable anesthetic, surgical, and nursing backup (correlates with higher birth volumes and lower rates of physician loss), and physician groups who share obstetric call or entire obstetric practices.[12]

Limitations

It is understood that this study has some inherent weaknesses. First, sample size will always be small as reflects the decline (query the demise) of the rural family physician—obstetrician. Second, this survey presents only a "point-in-time," and extrapolations to past and future are opinion only. No attempt was made to survey physicians in those communities whose doctors did not deliver babies. Finally, we acknowledge that this is a study of rural family physician—obstetricians, who may differ from their colleagues who practise in the remote communities of Canada.

Conclusion

Physicians are internally motivated to practise obstetrics and consider it to be in accordance with their personal values and professional goals. As a result, educators are advised to identify such students early in their medical training and provide them with mentors, rural placements, experience in complex decision-making, and to strive to instill confidence within their graduates.

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