

Graduates' Views of the Ontario Midwifery Education Program

Points de vue des étudiants du programme de formation en sage-femmerie de l'Ontario

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ABSTRACT

A survey of all graduates of Ontario's Midwifery Education Program was done in 2003 in order to obtain their views about the adequacy of their preparation for professional practice, the satisfaction with program features and future educational aspirations. The respondents (123 of 181[68%] graduates) were nearly all working as midwives, most were working full time and more than half had been preceptors for students since the time of their own graduation. The most highly rated Program features were biological science courses, final year clinical courses, small group tutorials and skilled preceptors. The aspects of the Program that were most stressful were balancing the high demands of the Program with family responsibilities, relocating for clinical placements and having difficulties with preceptors. Overall, graduates felt well prepared for professional practice. All graduates reported undertaking continuing education and many were interested in master's level courses or programs. The crucial role of preceptors in students' educational experiences was reinforced by the survey results. Resources for preceptor development continue to be a high priority.

KEY WORDS

Education, midwifery, graduates, Ontario, preceptors

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RÉSUMÉ

Un sondage a été effectué en 2003 auprès des diplômés du programme de formation en sage-femmerie de l'Ontario, dans le but d'obtenir leur point de vue sur la pertinence de la formation en vue de la pratique professionnelle, leur niveau de satisfaction par rapport aux particularités du programme et leurs futures aspirations en matière d'éducation. Les répondants (123 sur 181, soit 68 % des diplômés) travaillaient presque tous comme sages-femmes, la plupart à temps plein et plus de la moitié à titre de précepteurs pour les étudiants depuis l'obtention de leur propre diplôme. Les cours les plus appréciés étaient : sciences biologiques, cours cliniques de dernière année, classes dirigées en petits groupes et précepteurs qualifiés. Les aspects du programme les plus stressants étaient l'équilibre entre les exigences élevées du programme et les responsabilités familiales, les transferts pour les stages cliniques et les difficultés avec les précepteurs. Dans l'ensemble, les diplômés trouvaient la formation adéquate à la pratique professionnelle. Tous les diplômés ont indiqué qu'ils voulaient faire de la

formation professionnelle continue et plusieurs d'entre eux étaient intéressés à s'inscrire à des cours ou des programmes au niveau de la maîtrise. Le rôle crucial de précepteur, en ce qui a trait à l'acquisition d'expérience en matière de formation d'étudiants, s'est trouvé renforcé par les résultats du sondage. Les ressources relatives au développement des précepteurs continuent d'être hautement prioritaires.

MOTS CLÉS

Education,

Cet article fut révisé par ses pairs.

Background

Teachers and leaders of education programs often obtain the views of enrolled students about the structure and content of their program in an effort to identify curricular or organizational weaknesses. Students are regularly asked for feedback through formal written evaluations and informal discussions. However, currently enrolled students cannot reflect on the totality of a program nor judge whether the preparation was adequate for their chosen career. Graduates' views about their preparation can reflect this larger perspective and their views can be useful for program evaluation and future planning.

The Ontario Midwifery Education Program is Canada's first university degree midwifery program and is offered by a consortium of McMaster, Laurentian and Ryerson universities.¹ It opened in 1993 with the admission of 21 students and now annually admits 60 students. It is a baccalaureate level program that required three calendar-years of study until the program altered in 1997 to four academic years. Simultaneous with that change, additional science courses were required along with increased opportunities to enroll in elective courses. The Program has nine academic terms comprised of three non-clinical and six clinical placement terms. The non-clinical courses cover biological, social and health sciences. Each clinical placement term includes supervised practice under the guidance of a designated preceptor as well as weekly small group problem-based tutorials.² Students in the program are admitted, enrolled and graduate from one of the three participating universities. While program delivery varies somewhat within each university site, the core curriculum is shared and the problem-based tutorial groups are a mix of students from the three sites.

Surveys of graduates from 1996 to 1998 were done to obtain their views about their preparation to be midwives.^{3,4} The information contributed importantly to changes made to the program in 1997 and 1998. As the faculty group approached the tenth year of operation in 2003, we revised the questionnaire and undertook a survey of all graduates to that date with the following objectives:

1. to determine graduates' satisfaction with aspects of the education program,
2. to detect areas for continued improvement of the structure and curriculum, and
3. to learn about the current practice and future educational aspirations of graduates.

Methods

The mailed questionnaire was designed in conjunction with the Program for Educational Research and Development, McMaster University. The survey contained six categories of items for graduates to assess:

- Academic subject areas
- Teaching-learning methods
- University resources
- Program organization
- External influences on student experience
- Overall rating of preparation

The items were constructed as five-point Likert scales with appropriate anchors for each set of items. Space was provided also for open-ended responses to questions about the most positive and negative aspects of the program. A final section inquired about midwifery work experience and interest in continuing education.

The surveys were mailed to all 181 graduates who completed the program between 1996 and 2003.

Reminders were sent three months later to graduates who failed to respond. Completed surveys were returned to and analyzed by the research staff. The open-ended responses were examined for frequency of topic area. In addition to obtaining the mean and standard deviation of the total responses to each item, one way analysis of variance procedures were used to compare mean differences by site of enrollment and by program length (three-year Program versus four-year Program).

RESULTS

Respondents

The response rate overall was 68 % (123 of 181 graduates). The response rate from graduates of the three-year Program (1996-2000) was 75% (75/100) compared with 54% from graduates of the four year Program (2001-2003). When response rates were compared by university site of enrollment, they were 54% (site "A"), 66% (site "B") and 78% (site "C").

We did not collect socio-demographic information from respondents since we did not plan to analyze responses in relation to those variables. We know from the profiles of students at the time of enrollment that up to 80% have previous university degrees, all are women and the modal age is late twenties.

Of the 123 respondents, 112 (92%) reported they were working as a midwife, and 105 of them were in Ontario. The majority were working full time. More than half (55%) had been a preceptor for a student in the Ontario Midwifery Education Program, and of those who graduated more than two years prior to the survey, 84% had been a preceptor. (The Program requires a minimum of one year of practice prior to becoming a preceptor.)

Ratings of courses and program features

Non-clinical courses were grouped into four categories: biological sciences, social sciences, research related, and electives. Ratings of the importance of each category of courses were obtained. On scales where 5 was most effective, the highest mean rating was given to biological sciences

(4.73, sd 0.44), followed by research related courses (3.79, sd 0.88), social sciences (3.55, sd 1.1) and then electives (2.87, sd 1.5).

Because six of the nine academic terms are devoted to clinical placements, we asked for ratings of effectiveness for each of those courses. The three clinical courses taken during the final year of study (Midwifery Care III, IV and Clerkship) received high mean ratings (4.48, sd 0.66; 4.43, sd 0.75; 4.46, sd 0.90, respectively) compared to clinical courses taken prior to the final year. (See Table 1)

We sought ratings for the categories of teaching and learning methods used throughout the program. Graduates rated as most effective the clinical skills teaching by faculty tutors and preceptors (mean 4.3,

Table 1 - Ratings of Clinical Courses

Clinical Course	Mean scores (sd) N=121
Intensives (clinical skills workshops)	4.02 (0.73)
Midwifery Care I	3.81 (0.98)
Midwifery Care II	4.16 (0.84)
Midwifery Care III	4.48 (0.66)
Midwifery Care IV	4.43 (0.75)
Clerkship	4.46 (0.90)
Community Placements	4.04 (0.94)

Rating scale is 1-5. A higher mean score indicates greater effectiveness

sd 0.98) followed by small group problem-based tutorials (4.0, sd 1.1). Distance learning (no in-person contact with the teacher or other students) was rated as least effective (2.6, sd 1.1). (See Table 2)

Evaluation of students is conducted in many ways. Preceptors have extensive contact and directly observe students' clinical skills. The faculty tutors use written exams and other written assignments, objective structured clinical exams (OSCEs), oral presentations, as well as self and peer assessments. Graduates rated direct observation as the most effective evaluation method (4.15, sd 0.77), followed by OSCEs (4.0, sd 0.90). (See Table 3)

Students often must relocate for the academic and/or clinical portions of the program depending

Table 2 - Ratings of teaching-learning modalities

Modality	Mean scores (sd) n = 100
Clinical skills	4.3 (0.98)
Small group PBL tutorial	4.0 (1.1)
Lectures	3.4 (0.84)
Seminars	3.0 (0.95)
Distance courses	2.6 (1.1)

Rating scale is 1-5. A higher mean score indicates greater effectiveness

Table 3 - Ratings of evaluation methods

Format	Mean scores (sd) n = 120
Direct observation	4.15 (0.77)
OSCE	4.00 (0.90)
Written assignments	3.84 (0.74)
Self assessment	3.79 (0.90)
Written exams	3.70 (0.82)
Oral presentations	3.64 (0.85)

Rating scale is 1-5. A higher mean score indicates greater effectiveness

on their place of residence and the availability of clinical placements. On scales where a rating of 1 was "very difficult for me," the difficulty of balancing family and program commitments (2.61, sd 1.1) and relocating (2.65, sd 1.4) appeared to be the most difficult organizational aspects of the program.

There were no statistically significant differences between the mean ratings of courses or program features when comparisons were made between graduates of the three-year and four-year program.

Global ratings and narrative responses

We obtained global ratings about two items: graduates' perceived preparedness for midwifery practice and preparedness for working with others. Overall the mean scores on these items were 4.04, (sd 0.84) and 3.58 (sd 1.2), respectively on a 5 point scale. As shown in Table 4, the mean ratings by site of enrollment varied consistently with Site A having the lowest score and Site C having the highest score; the differences were statistically significant [prepared for practice $F(2,120) = 4.86, p = 0.009$; prepared to work

with others $F(2, 118) = 4.16, p = 0.01$].

The narrative responses about positive and negative aspects of the program closely paralleled the findings from the rating scales. The most frequently cited positive aspects were clinical placements and good preceptors, small group tutorials and biological science courses. The negative aspects most often cited were poor preceptors, balancing competing obligations (usually family and school), financial strains and having to relocate for clinical placements.

Interest in continuing education

We included questions in the survey to elicit interest in modes of continuing education. Virtually all the respondents (97%) have an interest in attending workshops and conferences. A large proportion (68%) has an interest in pursuing graduate level courses or programs, most often with a focus on clinical practice and teaching.

Discussion and Conclusions

The response rate of 68% was lower than we hoped for, and respondents may not be representative of the entire group of graduates. The response rate varied between graduates of the three-year and four-year programs and varied considerably by site of enrollment. However, with the exception of global ratings of preparedness, the comparison of ratings by site and by length of program did not reveal any significant differences in responses.

The overall survey findings are consistent with those from earlier surveys.^{2,3} Graduates continue to perceive that they are well prepared for practice. The ratings of effectiveness of clinical skills

Table 4 - Ratings of perceived preparation for practice and working with others

	All sites	Site A	Site B	Site C	
Preparation for practice	4.04	3.70	3.88	4.27	$F(2,120) = 4.86$ $p = .009$
Preparation to work with others	3.58	3.10	3.40	3.87	$F(2,118) = 4.16$ $p = .01$

Rating scale is 1-5. A higher mean score indicates greater preparedness.

teaching and small group tutorials are consistent also with previous findings. Students value the "hands on" practical training that takes place in intensive workshop sessions as well as the participatory style of learning that is inherent in problem-based tutorials.

Courses offered completely at distance continue to be considered the least effective method of teaching-learning. These non-clinical courses were offered during the initial years of Program operation in the form of paper-based courses using postal services for exchange of materials. However, more recent graduates whose experience with these courses involves electronic communication with the instructor also rated them as the least effective. Our hypothesis is that the lack of "real time" interaction with faculty and with other students is much less satisfying to students.

The high rating of the effectiveness of the biological science courses is useful information because graduates from the early years of the Program's existence strongly recommended strengthening the science courses. Also rated as highly effective were courses that teach students to critically read and review clinical research. The high ratings given to the sequence of three clinical courses in the final year of study are not surprising because students obtain the largest volume of experience, consolidate their skills and function with increasing independence during these courses.

Since students spend a great amount of time in clinical placements, it is not surprising that graduates rated the direct observation and feedback they received from their supervising preceptors as a highly effective evaluation method. The student-preceptor relationship incorporates many of the traditional aspects of an apprenticeship. A good relationship is a very positive experience for both the preceptor and student. When the relationship is not well established, problems can arise. This duality is reflected in the prominence of narrative responses about "good" preceptors and the equally prominent ones about "poor" preceptors.

Somewhat surprising to us was the high rating of

effectiveness given to OSCEs, the structured clinical exams where students rotate through a series of stations to be assessed on various skills. Because this testing method is logistically challenging to arrange and resource intensive to administer it is not used frequently. As well, students display considerable anxiety when they occur. They do, however, appear to be perceived as an effective means of assessing student performance and we will consider increasing their use.

While the overall ratings for perceived preparation for practice and working with others were relatively high, the differences among graduates by enrollment site are difficult to interpret since all graduates experience the same clinical courses. The findings may reflect unexplained sources of variance other than site of enrollment and may merit further investigation.

The high rate of interest in continuing education, especially at the graduate level is inspiring and challenging. There are no graduate programs in midwifery available in Canada as yet and those who are interested in masters and doctoral degree programs must pursue studies in related disciplines. Many graduates of the midwifery program have previous degrees in science, social science, nursing or general arts. They are a mature and well-educated professional group who appear to carry into their work a desire for continued learning and career development.

We conclude that, overall, graduates perceive the Ontario Midwifery Education Program to have prepared them well for clinical practice, that the areas of strength are the upper level clinical courses as well as the biological science and research related courses. The ratings given to teaching-learning modalities, with the exception of distance education, are all above the mid point of the scale, but the preference for small group tutorials is apparent. The ratings of evaluation methods are more tightly clustered, and especially so for the methods used to assess knowledge acquisition (rather than clinical skills and judgment). The scores reinforce our stance that multiple methods of evaluation are useful.

The challenges come in addressing the aspects of the Program that are most troubling to students and graduates. We need to prepare students better for relocation, provide greater direction and assistance for financial concerns and work very hard on preceptor development. Preparation at the graduate level in clinical education is not an immediate prospect, but continuing education offerings are necessary. We have steadily increased the number and extent of these for preceptors in order to assist them to be effective clinical teachers. The crucial role of preceptors in our program requires that we invest even more resources in this sector.

REFERENCES

1. Kaufman K, Soderstrom R. Midwifery Education in Ontario: Its origins, operation and impact on the profession. In Bourgeault IL, Benoit C, and Davis-Floyd, R. *Reconceiving Midwifery*. Montreal & Kingston: McGill-Queen's University Press; 2004. p 187-203.
2. McNiven P, Kaufman K, McDonald H. A problem-based learning approach to midwifery. *British J of Midwifery* 2002;10(12):751-755.
3. Stewart D, Pong R. Summary report of the 1996 and 1997 Cohorts of Graduates of the Midwifery Education Programme. Sudbury: Centre for Rural and Northern Health Research, Laurentian University. Unpublished report. 1999.
4. Stewart D, Pong R. Summary report of the 1998 Cohort of Graduates of the Midwifery Education Programme. Sudbury: Centre for Rural and Northern Health Research, Laurentian University. Unpublished report 1999.

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