

Original Research Paper

GPs' preferences for vocational education through flexible learning

Jane Stewart M Ed (Hons), Pam Hyde Ph D, Jocelyn Tracey MB ChB, Ph D, FRNZCGP

Jane Stewart is Education Development Officer for the Intensive Clinical Training Programme, RNZCGP.

Pam Hyde is National Director for the Intensive Clinical Training Programme, RNZCGP.

Jocelyn Tracey is Honorary Associate Professor, Department of General Practice, School of Medicine, University of Auckland.

ABSTRACT

Aim: To explore the extent of the demand and delivery preferences for the RNZCGP Stage I, Intensive Clinical Training Programme through distance learning, in GPs who have demonstrated commitment to general practice and to vocational registration.

Method: A questionnaire was sent to all GPs who had sat the Primex examination from 1995 to 1999 and to those who had applied for Stage I vocational education in 2000.

Results: The response rate was 52 per cent. Respondents who had participated in vocational education indicated that preparing for general practice was the most important reason for participation. Perceived barriers to participation included financial and employment commitments. According to respondents, flexibility was the most important reason for studying at a distance, but they noted a preference for maintaining regular face-to-face contact.

Television/video was rated as the most easily accessed medium, while most respondents noted a preference for computing. There were significant differences in the likelihood of participation in the programme through distance learning between those who had completed the Intensive Clinical Training Programme and those who had not.

Conclusions: The study indicates providing a distance learning option would increase the flexibility of provision and may increase the numbers of practitioners participating in the programme.

INTRODUCTION

The Royal New Zealand College of General

KEY POINTS

- The key reason GPs enter the RNZCGP Intensive Clinical Training Programme (ICTP) is to prepare for general practice and the GP role
- Barriers to entering the training programme include financial, time out from employment and family responsibilities
- Less face-to-face contact with peers and teachers was seen as a disadvantage of distance education
- Distance learning programmes

Practitioners (RNZCGP) offers a General Practice Education Programme (GPEP), which prepares doctors for general practice in New Zealand. This is a two-stage programme: Stage I, Intensive Clinical Training Programme

The RNZCGP is presently exploring ways in which Stage I can be delivered so it is more accessible to doctors in both urban and rural areas

(ICTP) and Stage II, Advanced Vocational Education (AVE). Stage I is a 40-week programme, based on supervised practice-based learning, one-on-one teaching with an accredited vocational teacher and attendance at day release seminars and workshops for the equivalent of one day per week.

The RNZCGP is presently exploring ways in which Stage I can be delivered so it is more accessible to doctors in both urban and rural areas. The current method of delivery makes it difficult for some potential trainees to access the programme because their geographical location would mean extensive travel to weekly seminars. The focus for exploring a distance learning option is twofold: to explore the possibility of increasing the flexibility of provision and, in doing so, to improve access to the programme for a greater number of GPs.

This study explores the extent of the demand for Stage I, ICTP through distance learning, as well as preferred formats for delivery, with a group of GPs who are committed to general practice and to vocational registration.

need to include activities which reduce the sense of isolation learners can experience

- There is an unmet demand for Stage I GP vocational education from doctors who are unable to access the current ICTP

METHODS

A

| TABLE 1: REASONS FOR PARTICIPATING IN THE INTENSIVE CLINICAL TRAINING PROGRAMME (n=308) | | | | | |
|---|----------------|------------------------------|-------------|-----------------------------|--------------------------|
| Important reason for participation | Average score* | Score 5 "very important" (%) | Score 4 (%) | Score 3 quite important (%) | Total for scores 3-5 (%) |
| Prepare for GP role | 4.44 | 65 (n=198) | 18 (n=55) | 14 (n=43) | 97 (n=296) |
| Feel more confident in GP role | 4.40 | 64 (n=198) | 20 (n=63) | 9 (n=28) | 94 (n=289) |
| Prepare for Primary | 3.94 | 34 (n=104) | 35 (n=108) | 23 (n=72) | 93 (n=284) |
| Become MRNZC GP | 3.59 | 31 (n=94) | 23 (n=69) | 29 (n=87) | 82 (n=250) |
| Shorten time for accreditation | 3.42 | 25 (n=75) | 25 (n=75) | 26 (n=77) | 76 (n=227) |
| Get a better job | 2.38 | 7 (n=21) | 11 (n=31) | 26 (n=75) | 44 (n=127) |
| * On a scale of 1-5 with 1 being "not at all important" and 5 being "very important" | | | | | |

questionnaire was designed by the principal authors, two of whom worked for the ICTP and understood the issues involved in vocational education, and one of whom had experience in providing postgraduate diploma courses to GPs.

Piloting of the questionnaire for appropriateness and completeness of content, and lack of ambiguity was done by 10 GPs; half had completed the

ICTP and half had not. Their comments were obtained by follow-up phone calls after receiving the written questionnaire.

The population sampled was all GPs who had sat the Primex examination from 1995–1999 and those who had applied for the ICTP in 2000 (n = 720). The respondents included those who had completed the ICTP and those who had sat the Primex examination after six months in general practice but without general practice vocational education. One follow-up reminder mailing was sent three weeks after the initial mailing.

For the purpose of the survey, distance learning was defined as "learning from the learner's home base with support from teachers at a distance, as well as seminar block courses".¹ The questionnaire focused on the reasons why respondents had or had not participated in the ICTP, how many hours a week they thought it was reasonable to spend on preparation for Primex, the reasons why they might choose to study at a distance and potential disadvantages in doing so, media they could access, and preferred timing for block courses.

Finally, they were asked the likelihood of participating in the ICTP through distance learning, had it been available. Most of the questions asked respondents to respond to positive statements on a five-point scale from 1 = "not at all important" to 5 = "very important".

RESULTS

There was a 52 per cent (n = 374) response rate. Approximately two-thirds (n = 241) of the respondents were women and in the 30–39-year-old age group. Just over half were working full time.

Eighty-six per cent (n = 320) of respondents were members or associate members of the College and 81 per cent (n = 303) had participated in the ICTP. Just over a quarter (27 per cent, n = 100) were from the greater Auckland area, including the Hibiscus Coast.

TABLE 2: THE MOST IMPORTANT REASONS FOR NOT PARTICIPATING IN THE TRAINING PROGRAMME (n=82)

| Important reasons for not participating | Average score* | Score 5 "very important" (%) | Score 4 (%) | Score 3 quite important (%) | Total for scores 3-5 (%) |
|--|----------------|------------------------------|-------------|-----------------------------|--------------------------|
| Financial reasons | 3.60 | 38 (n=31) | 20 (n=16) | 23 (n=19) | 80 (n=66) |
| Family responsibilities | 3.45 | 36 (n=28) | 14 (n=11) | 22 (n=17) | 72 (n=56) |
| Release time from employment | 3.27 | 34 (n=26) | 18 (n=14) | 14 (n=11) | 66 (n=51) |
| Too many other commitments | 3.28 | 31 (n=25) | 17 (n=14) | 17 (n=14) | 65 (n=53) |
| Not interested in vocational training | 1.40 | 0 (n=0) | 2 (n=1) | 11 (n=7) | 13 (n=8) |
| * On a scale of 1-5 with 1 being "not at all important" and 5 being "very important" | | | | | |

Participation in vocational training

According to the respondents, the most important reasons for participating in vocational education were to prepare for general practice and to feel more confident in the GP role (Table 1). Six open responses to this question supported the importance of increased confidence, as in the following example:

"Support of programme very important – not confident about going it completely alone first up".

These reasons were more important than preparing for Primex or gaining membership of the College. Fifty-six per cent (n= 166) ranked participating in the ICTP as of little importance for employment, eg, getting a better job. The most important reasons for not participating in vocational education were financial reasons, getting release time from employment and family responsibilities (Table 2). Only 13 per cent were "not interested in vocational training".

Studying at a distance

Respondents identified "flexibility – easier to fit in with other/family commitments" as the most important reason for studying at a distance (Table 3). Respondents also rated less time off work, less travel and less financial disadvantages as important reasons. The open responses to this question indicate that offering the programme through distance learning would support rural general practice.

According to respondents, the biggest disadvantage of studying at a distance was having "less regular face-to-face contact with peers". Forty-five per cent (n = 165) ranked this as "very important". A further 49 per cent ranked this as "important/quite important". Another important disadvantage of distance learning was "lack of one-on-one teaching". Forty per cent (n = 141) ranked this as "very important". Many of the open responses supported this ranking, as the following example illustrates:

According to respondents, the biggest disadvantage of studying at a distance was having 'less regular face-to-face contact with peers'

"The best teaching for general practice in my opinion is to actually work in a practice with another GP." Likewise, "less face-to-face interaction with GP teachers in regular seminar sessions" was seen as an important disadvantage. Thirty-six per cent (n = 130) ranked this as "very important".

Distance learning modes of delivery

Another important disadvantage of distance learning was 'lack of one-on-one teaching'

Respondents were asked about their preferences in relation to distance learning delivery methods. Television/video was rated as the most easily accessed medium (Table 4). Sixty per cent (n = 220) rated this choice as "very easily" accessed. Respondents provided an open response to the question: "What media would you prefer to use?" The responses were totalled and not ranked in order of preference. Computing was the most often noted preference (Table 5).

Respondents were also asked to rate how easily they could attend block courses in central locations as part of a distance learning option. Sixty-four per cent (n = 215) ranked the most easily attended block courses as those scheduled three to five times a year, of two to three days' duration and including a weekend.

Likelihood of participation through distance learning

| TABLE 3 REASONS FOR STUDYING AT A DISTANCE (n= 362) | | | | | |
|--|----------------|------------------------------|-------------|-----------------------------|--------------------------|
| Reasons for studying at a distance | Average score* | Score 5 "very important" (%) | Score 4 (%) | Score 3 quite important (%) | Total for scores 3-5 (%) |
| Flexibility fit in with other/family commitments | 4.44 | 64 (n=233) | 21 (n=76) | 11 (n=40) | 96 (n=349) |
| Less time off work | 4.06 | 46 (n=164) | 27 (n=98) | 18 (n=63) | 91 (n=325) |
| Less travel time | 4.03 | 48 (n=173) | 24 (n=85) | 16 (n=56) | 88 (n=314) |
| Less financial disadvantages | 3.68 | 34 (n=119) | 25 (n=87) | 24 (n=84) | 82 (n=290) |
| * On a scale of 1-5 with 1 being "not at all important" and 5 being "very important" | | | | | |

Respondents were asked, in two different questions, about the likelihood of their participation in the ICTP through distance learning. First, the likelihood of participation when they started out in general practice (Table 6) and second, when they decided to sit Primex.

Respondents indicated they would have been more likely to participate when they decided to sit Primex (Table 7). Some 17 per cent (n = 58) stated they would have been "very likely" to participate at this stage compared with 14 per cent (n = 47) who stated they would have been "very likely" to participate when starting out in general practice.

Thirty-seven per cent (n = 125) responded they would have been "likely/quite likely" to participate in the programme through distance learning when they decided to sit Primex, while 34 per cent (n = 118) indicated they would be "likely/quite likely" to participate through distance learning when they started out in general practice.

Comparison of Stage I respondents

Subsequent to the initial analysis, the data from those coded as respondents who had not participated in Stage I (n = 68) and those who had (n = 303) were compared for five key questions, using two-tailed T tests assuming unequal variance. The purpose of this analysis was to ascertain if there were any significant differences in the responses between the two groups of respondents.

Some significant differences were found. Those who had not participated in the ICTP were more likely than the group who had participated in the programme to indicate that they would be likely to choose to do the programme through distance learning when starting out in general practice (p= 0.001). This group was also more likely than those who had participated in the programme to choose to do the programme through distance learning when they decided to sit Primex (p= 0.03).

| TABLE 4 MEDIA ACCESSED EASILY FOR DISTANCE LEARNING (n=369) | | | | | |
|--|----------------|---------------------------|-------------|--------------------------|--------------------------|
| Media | Average score* | Score 5 "very easily" (%) | Score 4 (%) | Score 3 quite easily (%) | Total for scores 3-5 (%) |
| Television programmes videotapes | 4.26 | 60 (n=220) | 18 (n=65) | 15 (n=57) | 93 (n=342) |
| Text books and journals | 3.96 | 47 (n=175) | 17 (n=64) | 24 (n=88) | 89 (n=327) |
| Computing email, Internet, CDRom | 3.89 | 49 (n=179) | 19 (n=68) | 15 (n=54) | 82 (n=301) |
| Audio tapes, audioc conferencing | 3.88 | 43 (n=159) | 19 (n=70) | 25 (n=90) | 87 (n=319) |
| * On a scale of 1-5 with 1 being 'not at all easily' and 5 being 'very easily' | | | | | |

Those who had not

participated in the programme were less likely to rate "less face-to-face interaction with GP teachers in regular seminar sessions" as a disadvantage of studying at a distance ($p = 0.0000056$).

There were similarities between the two groups. Both indicated that "flexibility – easier to fit in with other/family commitments" would be an important reason for studying at a distance. There was no significant difference between the two groups' ratings for ease of access to computing for distance learning.

DISCUSSION

Study design

The survey was designed primarily to evaluate the possible demand for the ICTP offered through distance learning. Therefore, it sampled those doctors who had sat the Primex examination regardless of whether or not they had accessed any vocational education. The questionnaire was not tested for reliability because of the range of topics covered and the varying question formats required. Basing the questionnaire upon previous research on why doctors study at a distance, using a questionnaire format familiar to GPS, and thorough piloting all enhanced content validity.

There were limitations to the study. First, it was a retrospective survey, which assessed respondents' perceptions of how they may have reacted to a distance learning option. Second, the surveyed group was the closest approximation to the College target group (ie, a group of GPs interested in vocational education), which was accessible through the College database. Surveying prospective trainees was not done because of the difficulties in gaining access to this population. Finally, the low response rate (52 per cent) led to a cautious interpretation of the results.

Principal findings

The majority of respondents indicated they participated in the programme in order to prepare for general practice and to feel comfortable in the GP role. Extrinsic reasons, such as becoming a member of the College or getting a better job, were unlikely to have influenced them to participate in vocational education for general practice. These results correspond with those of McLachlan-Smith and Tracey 2 who found that students enrolled in postgraduate diplomas for intrinsic reasons; to improve their knowledge and skills,

The majority of respondents indicated they participated

or because they considered they needed more skills. Similarly, Tracey, Arroll and Richmond,³ in their study of changes in CME uptake following reaccreditation in New Zealand, found that an awareness of needing an update in a particular area was the most important reason for attending CME courses.

The perceived barriers to participation in vocational education for general practice in the study population included financial reasons and getting release time from employment. This is similar to McLeod's⁴ finding that the primary barrier for GPs attending CME was practice responsibilities. The finding that "family responsibilities" was a barrier to participation in this study could be attributed to the high number of women respondents and those between the ages of 30 and 39. The gender and age characteristics of respondents could be associated with the likelihood of family responsibilities, particularly of those looking after dependent children.

in the programme in order to prepare for general practice and to feel comfortable in the GP role

Flexibility was the most important reason for studying at a distance

Flexibility was the most important reason for studying at a distance. This response fits into the societal context of an increasingly heterogeneous student population and their rising demands for advanced qualifications and flexible access.⁵ It also corresponds to Olcott's suggestion that students want "education and training when and where they need it, through a variety of delivery options and at a fair price".⁶

The three biggest disadvantages to studying at a distance were perceived as having "less regular face-to-face contact with peers", "less face-to-face interaction with GP seminar teachers" and a "lack of 1:1 teaching". Similarly, attempts to supplement one-on-one teaching with video-conferencing

technology in a Canadian family practice residency education programme were not entirely acceptable to third year residents.⁷

Isolation from peers is an issue for Joseph

| TABLE 5: MEDIA PREFERENCES | | | | |
|----------------------------|-----------|-------|------|-------|
| n=171 | Computing | Video | Text | Audio |
| Percentage of responses | 78 | 67 | 59 | 39 |
| Number of responses | 134 | 115 | 101 | 66 |

Scott-Jones⁸ who notes the support offered by distance learning centres which makes isolation less of an issue. The findings of this study can be linked to Bates's⁹ assertion that learners are always capable of generating questions and ideas that cannot be adequately anticipated by machine-based learning.

In summary, the development of "mixed-mode delivery",¹⁰ an approach that is centred on the need for tutorial and peer support, is supported by the survey responses.

Apart from the

| TABLE 6: LIKELIHOOD OF PARTICIPATION IN TRAINING THROUGH DISTANCE LEARNING WHEN STARTING OUT IN GENERAL PRACTICE | | | | | |
|--|----------------|---------------------------|-------------|----------------------------|--------------------------|
| | Average Score* | Score 5 "very likely" (%) | Score 4 (%) | Score 3 "quite likely" (%) | Total for scores 3-5 (%) |
| Total no of respondents | 26 | 14 | 14 | 20 | 48 |
| (n=342) | | (n=47) | (n=48) | (n=70) | (n=165) |
| * On scale of 1-5 with 1 being "not at all likely" and 5 being "very likely" | | | | | |

ascendancy of television/video as the most easily accessed medium, text,

audio and computing shared similar ratings from the respondents. In terms of preference, the most frequently recorded media were computing, video and text. These responses correspond with James and Beattie's⁵ observation that the mixing or integration of technologies seems inevitable.

In addition, Bates⁹ argues that technologies that allow access at any time, eg, computers, audiotapes, videotapes and text, allow more flexible access. He suggests that newer technologies such as computer mediated conferencing both require and help to develop new skills necessary in an information society.

In terms of preference, the most frequently recorded media were computing, video and text

Comparing those respondents who had participated in the ICTP with those who had not participated in the programme, revealed some significant differences. The finding that those who had not participated in the ICTP were more likely to choose to do the programme through distance learning suggests there may be a demand for general practice vocational education which is not being met by the programme's current delivery modes. Second, those who had not experienced face-to-face interaction with GP seminar teachers did not perceive this as such an important disadvantage to distance learning as those who had experienced this contact.

Future directions

Irrespective of the limitations highlighted, the study provides some useful data for consideration. First, explorations into vocational education through distance learning need to maximise opportunities for teacher/learner interactions as well as peer interactions in order to create a community of learners in an interactive environment, thereby reducing GPs' isolation.² Reducing isolation could be achieved through combining face-to-face opportunities, through block courses, with distance modes of delivery. The modes of delivery need also to reduce the sense of isolation, as well as to equip learners with the new skills necessary in an information society. This combination of face-to-face opportunities with distance modes of delivery is already a consistent feature of postgraduate general practice education. Second, there is a need to explore fully the potential for further use of technology when choosing the media mix for delivering distance learning. The stated ease of access to text, audio, video and computing, as well as the preference of the majority for computing, video and text, support this exploration. Finally, there may be an unmet demand for the Stage I, ICTP. GPs are interested in vocational education and some are unable to participate in Stage I as it is currently offered.

| TABLE 7. LIKELIHOOD OF PARTICIPATION IN TRAINING THROUGH DISTANCE LEARNING WHEN DECIDED TO SIT PRIMEX | | | | | |
|---|----------------|---------------------------|-------------|----------------------------|--------------------------|
| | Average Score* | Score 5 "very likely" (%) | Score 4 (%) | Score 3 "quite likely" (%) | Total for scores 3-5 (%) |
| Total no of respondents | 28 | 17 | 17 | 20 | 54 |
| (n=340) | | (n=58) | (n=58) | (n=67) | (n=183) |
| * On scale of 1-5 with 1 being "not at all likely" and 5 being "very likely" | | | | | |

Distance learning, defined for the

purposes of the survey as "learning from the learner's home base with support from teachers at a distance, as well as seminar block courses", is perceived as a viable option, especially to those who have not participated in

the ICTP. Having this option available would increase the flexibility of provision and may increase the numbers of practitioners who are able to participate in the programme.

Acknowledgements: Thanks to all GPs who participated in this study and to Helen Glasgow and Rebecca Cox of the RNZCGP for their administrative support.

Correspondence: Ms Jane Stewart, Intensive Clinical Training Programme, RNZCGP, PO Box 10 440, Wellington. Ph: (04) 496-5999; Fax: (04) 496-5987. Email: jstewart@rnzcgp.org.nz

References

1. Stewart JM, Hyde P, Tracey JM. General Practice Vocational Training Programme GPVTP Survey 1999. Wellington: RNZCGP; 1999.
2. McLachlan-Smith CJ, Tracey JM. Learning by distance for general practitioners: students' experiences of Goodfellow Unit diplomas. NZ Med J 2000;113:187-189.
3. Tracey JM, Arroll B, Richmond DE. Changes in CME uptake caused by reaccreditation. NZ Med J 1998;10 April;118-120.
4. McLeod D. Examining a professional activity: General practitioners' self-perceived needs for continuing medical education in geriatrics. Unpublished Master of Arts thesis, University of Auckland, 1997.
5. James R, Beattie K. Postgraduate coursework beyond the classroom: issues in implementing flexible delivery. Distance education 1997;17 (2):355-367.
6. Olcott, Jr D. Destination 2000: Strategies for managing successful distance education programs. Journal of Distance Education 1996; XI (2): 114.
7. Mills OF, Tatarko M, Bates JF, et al. Telemedicine precepting in a family practice center. Family Medicine 1999;31 (4):239-243.
8. Scott-Jones J. The loneliness of the long distance learner. NZ Doctor 2000; 10 May: 32.
9. Bates AW. The impact of technological change on open and distance learning. Distance education 1997;18 (1):93-101.
10. Telford A. Mixed-mode delivery: The best of both worlds? In: Thomas D (ed). Flexible learning strategies in higher and further education. London:Cassell,1995:164-175.