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Evaluative study on the learning outcomes of a year-long postgraduate training course in community geriatrics for primary care doctors

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ABSTRACT

There are increasing expectations on primary care doctors to shoulder a bigger share of care for patients with common geriatric problems in the community. This study aims to examine the outcomes of a postgraduate training course in geriatrics for primary care doctors. A questionnaire developed by the research team was sent to the Course graduates (year 2001-2007). Ninety-eight replies were received with a response rate of 52.4% (98/187). Difference in the ratings by the respondents before and after taking the Course was analysed using the nonparametric Wilcoxon signed rank test. Most respondents felt more rewarding and had participated more in geriatric care, and the majority had improvement in their communication skills with elderly patients after taking the Course. Moreover, the graduates are more confident in diagnosing and managing common geriatric problems, and deciding to which specialty to refer the elderly patients. Of the referrals, there was a significant increase to private geriatricians and a significant reduction to other specialists. The average number of elderly patients seen per day had also increased. However, little change was observed about making nursing home visits, the frequency of which remained low. Many graduates expressed difficulties in conducting nursing home visits.

Keywords: continuing medical education, geriatrics, learning outcomes, postgraduate training, primary care doctors

1. Introduction

Population aging is a worldwide phenomenon which arouses great concern among different countries and exerts a heavy burden on the demand for geriatric care (Briggs et al., 2006; Diachun et al., 2006). Subsequently, increasing expectations are put on primary care doctors to shoulder a bigger share of care for patients with common geriatric problems in the community (Hirth et al., 2008). However, not all primary care doctors were adequate to meet these expectations (Turner et al., 2004; Smith et al., 2007), and studies also indicated that undergraduate training in geriatric medicine was insufficient (Keller et al., 2002; Bartram et al., 2006).

In recent years, there emerges a global trend to strengthen the quality of primary care doctors in terms of their medical knowledge and practice through postgraduate studies or vocational training (Pearce et al., 2003; Lam et al., 2006). The effects of postgraduate medical courses on improving health outcomes have aroused much interest (Executive Council, 1998; Illing et al., 2002). Studies in Europe and Australia showed that primary care doctors achieved improvements in clinical practices, patient care, professional role development and lifelong learning interest after taking postgraduate courses (Piterman et al., 2000; Taanila et al. 2002; Schattner et al., 2007). At the same time, barriers to apply their learned skills and concepts into workplace practice were also identified (Pullon et al., 2005).

There is however little information available in the literature on the possible effect of postgraduate training on improving the skills and confidence of primary care doctors in geriatric care (Willett et al., 2007) and the rate of referrals to geriatricians. Moreover,

knowledge of the impact of postgraduate studies on primary care doctors to participate in community healthcare services for the elderly such as nursing home visits is lacking.

In the wake of a keen concern to strengthen the functions of primary care doctors in geriatric care among the Asian world (WHO, 2004; Flaherty et al., 2007; Food and Health Bureau, 2008; Wang et al., 2010), an evaluative study was conducted to examine the impact of the Postgraduate Diploma in Community Geriatrics (PDCG), which is a one-year part-time programme for primary care doctors developed by the Family Medicine Unit of The University of Hong Kong, in conjunction with the Hong Kong Geriatrics Society. Being a local initiative to enhance geriatric training for its target group, the PDCG includes the components of clinical attachment (20 sessions of clinical geriatric teaching and 5 sessions of rehabilitation and community health services), interactive workshops, locally-developed distance-learning manual, written assignments and examination as well as a clinical examination (detailed course structure and topics of study are shown in Table 1 and Table 2 respectively). Nearly 200 doctors, with the great majority being primary care doctors, have been trained since 2001. The clinical examination adopted the Objective Structure Clinical Examination (OSCE) format from 2006. A Conjoint Clinical Examination for the PDCG and Diploma in Geriatric Medicine (DGM) of the Royal College of Physicians and Surgeons of Glasgow was launched in 2008. This paper describes the outcomes of the PDCG, including impact on clinical skills and patient care, the practice characteristics of the graduates before and after the Course, and the long-term effect upon graduation.

2. Methods

2.1. Study design

A questionnaire was developed based on the review of relevant literature and comments from research team members (two senior consultant geriatricians, three senior family physicians and one medical statistician). Likert scale questions and open-ended questions were included to obtain both quantitative and qualitative data that would complement each other. The questionnaire was pilot tested in July 2008 and finalized the following month. A lucky draw (three prizes of US$60 book coupon each) was conducted amongst all those who had completed and returned their questionnaires as an incentive measure. Ethics approval was obtained from the local Institutional Review Board.

2.2. Data collection

Copies of the questionnaire, each enclosed with an invitation letter and a pre-paid return envelope, were sent to doctors who graduated from the PDCG between 2001-2007. The questionnaire itself was anonymous but coded with a reference number to identify the respondent for the lucky draw and for subsequent rounds of reminders. The code was known to one research assistant only and not available to members of the research team.

A total of 188 questionnaires were sent to the PDCG graduates in August 2008. Non-respondents were sent up to two reminders between September and December 2008. To improve the response rate, doctors who had not responded were contacted by telephone after the first reminder.

2.3. Data analysis

Quantitative analysis was carried out using the statistical software SPSS version 17.0. As in most cases, the measurements were mainly made in ordinal scale, statistical inference via the nonparametric Wilcoxon signed rank test on the differences in the responses before and after taking the Course was used to determine if there were significant changes in the median of the differences. A negative value in the median of the differences was an indication that the respondents tended more on the agreed side or a higher number reported after taking the Course. The examination results of the respondents and the non-respondents were also compared using the nonparametric Wilcoxon rank sum test. A two-sided p-value < 0.05 was considered statistically significant. In the sequel, we shall simply quote only the p-values and draw conclusions instead of going through the description of testing the null hypothesis that the median of the differences in the responses has not been changed after taking the Course. Moreover, the description in each case would emphasize on the pattern of the differences when the null hypothesis is rejected.

The qualitative responses were analyzed with a grounded theory approach and grouped into common themes independently by TPL and a research assistant who were both experienced in qualitative research. The consistency between the two entries was checked.

3. Results

Of the 188 questionnaires sent to the graduates, one postal address was invalid. Ninety-eight replies were received with a response rate of 52.4% (98/187). Of the respondents, 78.6% were male and 21.4% female, 36.1% were in public service and the rest in private service. A great majority (91.8%) of the respondents were primary care doctors, and the remaining few were working in the specialties of Emergency Medicine, Internal Medicine and Nephrology within the hospital setting. The mean (SD) years after graduation from medical school was 14.6 (9.48). The written and clinical examination results of the respondents and non-respondents were compared using the nonparametric Wilcoxon rank sum test. There were no significant differences (Table 3).

(Table 3 here)

3.1. The major learning outcomes

Table 4 shows the major learning outcomes of the students. Nearly all (95.9%) respondents had modified their approach to elderly patient care after taking the Course. Most respondents felt more rewarding (84.7%) and had participated more (82.7%) in geriatric care, and had improvement in their communication skills with elderly patients (79.5%). However, only 48.9% indicated that their career opportunities had been enhanced.

(Table 4 here)

3.2. Comparison of clinical practice before and after taking the Course

The responses to this part and the results of Wilcoxon signed rank test are summarized in Table 5 and Table 6.

3.2.1. Participation in the care of elderly patients

The average number of elderly patients seen by the respondents per day had increased significantly after taking the course. The median number of elderly patients seen per day was in the range of 11-15 before taking the Course, but had increased to the range of 16-20 after the Course.

Percentages of income contributed by treating elderly patients before and after the Course were compared. There were 55 respondents on a fixed salary and not able to answer this question. Of the 43 respondents who were in private practice, the mean percentage of income contributed by caring for the elderly patients increased slightly from 24.2% to 27.6% after taking the Course.

Although the majority of respondents did not make nursing home visit, the proportion of respondents who made these visits increased from 19.8% to 28.1% after the Course. Most of them carried out 1-5 nursing home visits per month.

(Table 5 here)

Of the 69 (71.9%) respondents who did not make any nursing home visit after taking the Course, they rated limited job opportunities (39.1%) and time constraint (37.7%) as the

two main reasons (multiple responses allowed). Only a small percentage of respondents rated lack of secondary/specialist support (14.5%), relative low remuneration (11.6%), limited income (5.8%), not interested (5.8%), unpleasant working environment (4.3%) or poor clinical satisfaction (2.9%) as the reasons.

3.2.2. Diagnosing and managing geriatric problem

Before taking the Course, only half of the respondents were confident of diagnosing (55.7%) and managing (51.6%) common geriatric problems such as dementia, falls, incontinence and stroke. After taking the Course, most graduates were confident of diagnosing (98.9%) and managing (93.7%) these problems.

3.2.3. Coordination with social support services

Regarding the coordination of social support services for elderly patients, 66.3% of the respondents disagreed or strongly disagreed that it was easy for them before taking the Course. This situation reversed upon completion of the Course, with 67.3% of the respondents felt it easy to coordinate with social support services. However, there was still one-third (32.6%) of graduates expressing difficulty in this issue.

3.2.4. Attitudes on geriatric care

Graduates were asked if they would like to work with chronically ill elderly patients. Significant changes were found after the Course. The combined percentage of ‘agree’ and ‘strongly agree’ increased from 68.5% to 88.5%.

When asked if they hoped caring for elderly patients to be the main part of their practice,

only half (48.9%) of the respondents agreed or strongly agreed before taking the Course. The percentage increased to 62.8% after taking the Course.

3.2.5. Referral of elderly patients

The proportion of respondents being confident of deciding to which specialty to refer increased significantly from 73.1% to 94.6% after the Course.

(Table 6 here)

Most respondents did not refer elderly patients to private geriatricians, and would refer them to public geriatricians or other specialists. After the Course, the average percentage of elderly patients being referred to private geriatricians increased from 2.8% to 6.1%, while to other specialists decreased from 53.4% to 49.1%. The changes in the referrals to private geriatricians and other specialists were statistically significant. However, no significant change was found in the referrals to public geriatricians. The average percentage remained around 44%. Details of the percentages of referrals are shown in Table 7.

(Table 7 here)

3.3. Qualitative responses

The open-ended questions were designed to study the impact of the Course and the barriers to implement what they had learned. The respective responses with corresponding graduation year of the respondents are described below.

3.3.1. What is the most important impact of the Course on you?

Most responses were related to the increased confidence or knowledge in clinical practices.

> Structured program designed specifically for the need of primary care: very useful to improve my daily practice in managing elderly patients. (2001)

> Update clinical knowledge especially bedside training that helped increase my confidence. Not just the notes which I can easily find in textbook. (2001)

Some graduates felt that they had increased understanding of the needs of the elderly patients and the social resources available to them.

> The management of geriatric medical problems requires a comprehensive and multi-disciplinary approach. The role of family doctor is to coordinate the services provided by various medical specialties. (2002)

3.3.2. Have you experienced any challenges or barriers to implement what you learned in this Course?

The challenges or barriers which the graduates encountered were rather diverse. Time constraint in consultation was one of the main barriers.

> My job nature has limited my care for in-patients/out-patients; not much experience in nursing home care and the time allocated to each patient is very limited, it is difficult to adopt a comprehensive approach to treat each geriatric patient. (2004)

> Most elderly patients have multiple and complicated diseases. More consultation time is required. (2005)

There were also problems about expensive drugs or investigations.

> Expensive medicine not available in practice; long waiting list for referral to the geriatric team. (2001)

A few respondents expressed that the financial reward to care for elderly patients was limited.

> Working hours and financial restraint. (2003)

4. Discussion

The year-long postgraduate training course in community geriatrics targeted at primary care doctors is among the very few of this kind of courses in the world. Our results showed that only half of the students were confident of diagnosing (56.7%) and managing (51.6%) common geriatric problems such as dementia, falls, incontinence and

stroke before taking the Course. Compared to the findings of Turner et al. [5] on UK general practitioners' confidence in the diagnosis (64%) and management (32%) of dementia, the PDCG students had lower confidence in diagnosis but higher confidence in management than their UK counterparts. However, after taking the Course, the proportion of graduates being confident of diagnosing (98.8%) and managing (93.7%) common geriatric problems had greatly increased.

Most graduates also exhibited greater enthusiasm in geriatric medicine after taking the Course, as indicated by their increased intention to participate in geriatric care and work with chronically ill elderly patients. There was however one-third of graduates who did not want caring for elderly patients to be the main part of their practice after this special training. One possible reason is that primary care doctors generally prefer a wider range of patients and illness conditions in their daily practice (Wright et al., 2004).

Despite a significant increase in the number of elderly patients seen per day, most of our graduates did not make nursing home visit after taking the Course, mainly due to the time constraint and limited job opportunities. Studies done in different parts of the world also offered reasons for the reluctance of many primary care doctors to be involved in this important element of geriatric care. For example, nursing home residents in the UK were found to be associated with higher workload for primary care doctors than other patients of the same age and sex living in the community (Groom et al., 2000). Another UK study showed that English primary care doctors were found to work longer hours if they had a higher proportion of patients in nursing homes (Gravelle et al., 2007). Studies in Australia revealed that many of their primary care doctors found

visits to nursing home unappealing due to poor level of remuneration for the effort involved (Gadzhanova et al., 2007). As the population is aging, more and more seniors are now residents of nursing homes in Hong Kong. There is a pressing need to promote the participation of primary care doctors in rendering care to the elders residing in nursing homes.

One third of graduates still expressed difficulties in the coordination of social support services for the elderly patients despite the fact that the figure is already much better than before taking the Course that two thirds of them had difficulties. The situation may be aggravated by the complex structure of the current social support services network and government bureaucracy, all of which point to the need of better understanding and closer collaboration between medical and social services.

The proportion of graduates being confident of deciding to which specialty to refer the elderly patients increased from 73.1% to 94.6%. Of the referrals, there was a statistically significant increase to private geriatricians and a significant reduction to other specialists, but no significant change to public geriatricians was identified after taking the Course. The changes suggest the possibility that the graduates are carrying out their gatekeeping function more effectively. They have improved themselves to recognise those elderly patients who require the attention of specialists more appropriately and make referrals accordingly, and thus reduced the chance of under- or non-treatment of elderly patients, for example, those with cognitive problems (Helmer et al., 2008). Apart from that, graduates are also able to look after more elderly patients with common geriatric problems after taking the Course. This is similar to the finding

that primary care doctors with an interest or training in a particular specialty may have a higher referral rate in that specialty despite they felt more confident than average in managing problems related to that specialty (O'Donnell et al., 2000; Hermush et al., 2009).

This study has some limitations. The response rate was slightly over 50% which is not particularly high for this kind of study but already much better than most other surveys among doctors in Hong Kong (The Harvard Team, 1998; Leung et al., 2002; The Hong Kong Medical Association, 2006). However, the examination performance of the respondents is very similar to the non-respondents (Table 3). Hence, our findings should be representative of the study sample. Furthermore, the findings of this study came from the graduates of one postgraduate training course in community geriatrics. All graduates work in the same healthcare system in Hong Kong which is a unique mix of private and public practice. Their educational and clinical needs may also be different from doctors working in other countries. However, as the world's population is aging, especially in more affluent countries, the experience that we have gained in Hong Kong in geriatric education for primary care doctors should be useful to postgraduate medical educators in other countries in meeting the demand of healthcare services for their increasing elderly population.

5. Conclusion

The results show that the Course is effective in improving graduates' confidence, attitude and skills in looking after elderly patients with common geriatric disorders. There are significant changes in the practice characteristics of the graduates after taking

the Course, including the increased number of elderly patients cared for, and improved confidence in making referrals. However, it is also noted that a relatively large proportion of graduates encountered the problems of coordination with social services and conducting nursing home visits.

Conflict of interest

None.

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Table 1 Course structure of PDCG

	Distance Learning & Interactive Workshops	Clinical Attachment
Study Period	September – December	December – June Once a week, either weekday afternoon or evening
Content	Designed to enrich students with theoretical and updated knowledge of common elderly problems and local services	Designed to equip students with practical training in diagnosing and management skills of common elderly problems
	5 interactive workshops are held on Saturday afternoons	5 sessions of rehabilitation and community health services
	10 weeks of locally-developed distance-learning study	20 sessions of clinical geriatric teaching
Assessment	Written assignments and written examination	Clinical examination

Table 2 The study topics of PDCG

Study topics
Distance Learning Study
Social aspects of aging
Clinical aspects of aging
Iatrogenesis
Mental disorders of old age
Bladder and bowel problems
Tiredness, anorexia and weight loss
Breathlessness
Turns, tumbles and tremors
Hypertension
Wound management
Painful conditions
Nursing home and institutional care
Falls, dizziness and osteoporosis, tremors
Functional independence and rehabilitation
Healthy aging- health promotion and disease prevention
Ethical issues
Interactive Workshops (2 seminar topics at each workshop)
Introduction to Geriatric Medicine
Ethical Considerations and Communication Skills in the Care of Elderly People
Use and Abuse of Drugs in Old Age
Geriatric Services in Hong Kong and Community Geriatric Care
Comprehensive Geriatric Assessment and Functional Assessment of Cognitive, Language, Visual & Hearing Impairment
Dementia and Delirium
Interpretation of Laboratory Investigations in Elderly People
Common Dermatological Problems in Elderly People
Urinary Incontinence and Constipation in Old Age
Falls and Accidents in Old Age
Clinical Geriatric Teaching
Stroke
Palliative care in elderly
Pressure sore
Dementia / Cognitive impairment
Diabetes mellitus in elderly
COPD: age related changes
CHF/Hypertension/Cardiac arrhythmia
Sensorium
Rheumatological conditions
Bladder dysfunction
Depression/Anxiety
Instability with recurrent falls
Parkinson disease
Malnutrition
Iatrogenesis and multiple pathology
Social deprivation
Acute confusion in elderly
Clinical Teaching of Rehabilitation and Community Health Services
Day hospital: allied health services, physiotherapy, occupational therapy, speech therapy and podiatry
Community geriatric assessment team and community nursing services

Table 3 Comparison of the written and clinical exam results between respondents and non-respondents

	Respondents Median (IQR[a]), n	Non-respondents Median (IQR), n	Wilcoxon rank-sum test
Written exam (total mark = 100)	65.60 (62.48 – 69.50), n = 98	64.65 (60.85 – 69.43), n = 90	$p = 0.144$
Clinical exam 2001 – 2006 (total mark = 100)	60.75 (56.95 – 65.18), n = 74	59.40 (54.48 – 63.23), n = 66	$p = 0.088$
Clinical exam after 2006 (OSCE format[b], total mark = 32)	26.50 (24.63 – 28.50), n = 24	27.00 (25.13 – 29.00), n = 24	$p = 0.508$

[a]Interquartile range

[b]The clinical examination adopted the Objective Structure Clinical Examination (OSCE) format from 2006

Table 4 The major learning outcomes (in descending order of combined frequencies of Likert scales 3 and 4)

As a result of the course …	strongly disagree 1	disagree 2	agree 3	strongly agree[a] 4
I have modified my approach to elderly patient care	0 (0.0%)	4 (4.1%)	66 (67.3%)	28 (28.6%)
I have found it more rewarding in geriatric care	0 (0.0%)	15 (15.3%)	68 (69.4%)	15 (15.3%)
I have participated more in geriatric care	0 (0.0%)	17 (17.3%)	57 (58.2%)	24 (24.5%)
I have improved my communication skills with elderly patients	0 (0.0%)	20 (20.4%)	56 (57.1%)	22 (22.4%)
I have increased my interest in lifelong learning through additional training	2 (2.0%)	30 (30.6%)	56 (57.1%)	10 (10.2%)
I have increased my interest in pursuing other postgraduate studies	0 (0.0%)	50 (51.0%)	40 (40.8%)	8 (8.2%)
My career opportunities have enhanced	2 (2.0%)	48 (49.0%)	41 (41.8%)	7 (7.1%)

[a]Likert scale from 1 (strongly disagree) to 4 (strongly agree). Percentages on valid data across rows of the table

Table 5 Changes in participation in the care of elderly patients

	Pre-course	Post-course[a]	Wilcoxon signed rank test
Elderly patients (age over 65) seen per day (*n*=98)			
0 – 5	19 (19.4%)	14 (14.3%)	
6 – 10	17 (17.3%)	21 (21.4%)	*Z* = -2.145,
11 – 15	15 (15.3%)	11 (11.2%)	*p* = 0.032
16 – 20	8 (8.2%)	15 (15.3%)	
Over 20	39 (39.8%)	37 (37.8%)	
Percentage of income contributed by looking after elderly patients (*n*=43)			
0 - 10	15 (34.9%)	10 (23.3%)	
11 – 20	13 (30.2%)	16 (37.2%)	
21 – 30	7 (16.3%)	6 (14.0%)	*Z* = -3.667,
31 – 40	2 (4.7%)	3 (7.0%)	*p* < 0.001
41 – 50	3 (7.0%)	4 (9.3%)	
Over 50	3 (7.0%)	4 (9.3%)	
Number of nursing home visits made per month (*n*=96)			
Nil	77 (80.2%)	69 (71.9%)	
1 - 5	16 (16.7%)	19 (19.8%)	
6 - 10	2 (2.1%)	6 (6.3%)	*Z*= -2.581,
11 - 15	0 (0.0%)	0 (0.0%)	*p* = 0.010
Over 15	1 (1.0%)	2 (2.1%)	

[a]Percentages refer to valid responses only. The whole pair of responses would be excluded in the analysis if either the response to pre- or post-course was missing.

Table 6 Changes in confidence and attitude in the care of elderly patients

	Pre-course	Post-course[a]	Wilcoxon signed rank test
I am confident of *diagnosing* patients with common geriatric problems (e.g. dementia, falls, incontinence, stroke) (*n*=88)			
Strongly disagree	3 (3.4%)	0 (0.0%)	
Disagree	36 (40.9%)	1 (1.1%)	Z = -7.280,
Agree	47 (53.4%)	59 (67.0%)	$p < 0.001$
Strongly agree	2 (2.3%)	28 (31.8%)	
I am confident of *managing* common geriatric disorders (*n*=95)			
Strongly disagree	3 (3.2%)	1 (1.1%)	
Disagree	43 (45.3%)	5 (5.3%)	Z = -7.924,
Agree	48 (50.5%)	58 (61.1%)	$p < 0.001$
Strongly agree	1 (1.1%)	31 (32.6%)	
I can coordinate easily with social support services for elderly patients (*n*=95)			
Strongly disagree	6 (6.3%)	2 (2.1%)	
Disagree	57 (60.0%)	29 (30.5%)	Z = -6.087,
Agree	30 (31.6%)	54 (56.8%)	$p < 0.001$
Strongly agree	2 (2.1%)	10 (10.5%)	
I would like to work with chronically ill elderly patients (*n*=95)			
Strongly disagree	2 (2.1%)	1 (1.1%)	
Disagree	28 (29.5%)	9 (9.5%)	Z = -5.905,
Agree	62 (65.3%)	60 (63.2%)	$p < 0.001$
Strongly agree	3 (3.2%)	25 (26.3%)	
I hope caring for elderly patients to be the main part of my practice (*n*=94)			
Strongly disagree	5 (5.3%)	3 (3.2%)	
Disagree	43 (45.7%)	32 (34.0%)	Z = -4.300,
Agree	44 (46.8%)	50 (53.2%)	$p < 0.001$
Strongly agree	2 (2.1%)	9 (9.6%)	
I am confident of deciding which specialty to refer an elderly patient to if a referral is necessary (n=93)			
Strongly disagree	1 (1.1%)	2 (2.2%)	
Disagree	24 (25.8%)	3 (3.2%)	Z = -6.451,
Agree	63 (67.7%)	55 (59.1%)	$p < 0.001$
Strongly agree	5 (5.4%)	33 (35.5%)	

[a]Percentages refer to valid responses only. The whole pair of responses would be excluded in the analysis if either the response to pre- or post-course was missing.

Table 7 Percentages of referrals to private geriatricians, public geriatricians and other specialists.

Percentage of elderly patients who had specialist referrals were referred to…	Pre-course	Post-course	Wilcoxon signed rank test
Private geriatricians			
0	61 (88.4%)	55 (79.7%)	
1 - 20	6 (8.7%)	9 (13.0%)	
21 - 40	1 (1.4%)	1 (1.4%)	Z = -2.558,
41 - 60	0 (0.0%)	2 (2.9%)	p = 0.011
61 - 80	0 (0.0%)	0 (0.0%)	
81 - 100	1 (1.4%)	2 (2.8%)	
Public geriatricians			
0	10 (14.5%)	5 (7.2%)	
1 - 20	20 (28.8%)	25 (36.2%)	
21 - 40	8 (11.6%)	6 (8.7%)	Z = -0.748,
41 - 60	8 (11.6%)	12 (17.4%)	p = 0.455
61 - 80	6 (8.7%)	8 (11.6%)	
81 - 100	17 (24.6%)	13 (18.8%)	
Other specialists			
0	16 (23.2%)	14 (20.3%)	
1 - 20	6 (8.7%)	8 (11.6%)	
21 - 40	7 (10.1%)	9 (13.0%)	Z = 2.116,
41 - 60	5 (7.2%)	11 (15.9%)	p = 0.034
61 - 80	12 (17.4%)	10 (14.5%)	
81 - 100	23 (33.3%)	17 (24.6%)	