Family Practice
© Oxford University Press 2002

Vol. 19, No. 1
Printed in Great Britain

Attitudes to family practice registration programmes. Survey of Korean and Norwegian family doctors

Hogne Sandvik and Hong-Jun Cho[a]

Sandvik H and Cho H.-J. Attitudes to family practice registration programmes. Survey of Korean and Norwegian family doctors. *Family Practice* 2002; **19:** 72–76.

Background. In order to save money and improve continuity, many countries plan to introduce registration programmes and capitation.

Objective. The aim of this study was to explore family doctors' attitudes towards such programmes.

Methods. Random samples of board-certified Korean family doctors (n = 205) and Norwegian general practice specialists (n = 257) were included in a postal survey using a structured questionnaire with visual analogue scales. Main outcome measures were demographic characteristics, practice types, workload, level of agreement with 10 statements and explanatory variables for the principal attitude towards a registration programme (regression analyses).

Results. Overall response rate was 79%. Nineteen per cent [95% confidence interval (CI) 14–23%] of Norwegian and 96% (95% CI 93–99%) of Korean doctors were solo practitioners. Korean doctors reported 388 (95% CI 359–418) consultations per week and Norwegian doctors 83 (95% CI 80–87). Satisfaction with their present organization was lower in Korea (50%, 95% CI 46–53%) than in Norway (71%, 95% CI 68–74%). Korean doctors were more in favour of a registration programme (70%, 95% CI 66–73%) than Norwegian doctors (57%, 95% CI 53–61%). Main explanatory variables for being in favour of a registration programme were increased continuity (β 0.495, $P < 0.001$) and dissatisfaction with the present system (β –0.212, $P < 0.001$). In Korea, the prospect of more comprehensive care (β 0.440, $P < 0.001$) and a positive attitude towards gatekeeping (β 0.193, $P < 0.001$) were strong predictors, while Norwegian doctors favour a registration programme if it will not increase their workload (β –0.166, $P < 0.01$).

Conclusion. Regardless of nationality, most family doctors favour a registration programme.

Keywords. Attitude of health personnel, continuity of patient care, family practice, gatekeeping, health services administration.

Introduction

For decades, inhabitants of countries such as the UK, The Netherlands and Denmark have been formally registered with their own personal GP. This personal physician serves as first contact, representing continuity and co-ordination, and acts as gatekeeper. This model has also been introduced in developing countries.[1] Most other countries rely on more fragmented and expensive health care systems, with free access to specialists, who offer primary care services as well.[2]

Received 1 May 2001; Accepted 3 September 2001.
Department of Public Health and Primary Health Care, University of Bergen, Ulriksdal 8c, N-5009 Bergen, Norway and [a]Department of Family Medicine, University of Ulsan College of Medicine, Korea.

In addition to delivering less intensive care, GPs are probably more effective than specialists in selecting appropriate candidates for specialist care, protecting patients from overtreatment.[3] Most patients would welcome a primary care physician as first contact and co-ordinator, even in countries that are highly market and specialist oriented.[4]

The escalating cost of health care is a major concern all over the world. Countries whose health care systems are more oriented towards primary care seem to achieve better results at lower costs,[5] and it has been recommended that the family doctor should be given a more central role in the health care systems.[6] Thus, many countries have made plans to introduce registration programmes and capitation.[4,7–9]

One would expect family doctors to welcome these empowering changes eagerly, but many are hesitant. It is

tempting to use a Biblical analogy (John 6:15): "Knowing that they intended to come and make him king by force, he withdrew again to a mountain by himself." In the USA, only 32% of gatekeeping physicians rated the gatekeeping system as better than the traditional system. Among negative factors were reduced freedom, more administration, reduced quality of care and a deterioration of the physican–patient relationship.[10] It is also feared that the care provided by primary care physicians may become too comprehensive and complex.[11]

In trials of registration programmes, job satisfaction among participating GPs shows conflicting results.[7–9] When longitudinal care is increased, the physicians may experience increased responsibility and stress,[12] especially if they cannot control their workload (list size).[13] Female physicians and solo practitioners may be particularly vulnerable.[8,14]

As many different countries are now planning to introduce registration programmes, it is important to explore the mixed feelings which family doctors have for this system. Success is dependent upon the co-operation of an enthusiastic workforce of physicians. The aim of this study was to compare the attitude of family doctors in two countries with very different cultures and health care systems, and to identify which factors determine their principal attitude towards registration programmes.

Methods

The study was conducted in Norway and Korea in January and February 2001. In Norway, GPs have a long tradition as almost exclusive providers of primary health care,[7,8] while Korea is a typical example of a market- and specialist-oriented health care system, where most of the primary health care is delivered by specialists.[2] All Korean practising doctors are paid by a fee-for-service system. Some Norwegian GPs work on a fixed salary, but most are paid by a subsidized fee-for-service system. In Norway, a pilot registration programme was started in four municipalities in 1993,[7,8] and a permanent programme was introduced on a national level in 2001. Korea has also made plans to introduce a registration programme in the near future.

A random sample of board-certified Korean family doctors and Norwegian GP specialists were included in a postal survey. The number of participants needed was decided after performing a power calculation on categorical variables, with two-sided tests, 5% significance, 80% power, minor statistic 0.1 and larger statistic 0.2. This yielded a need for ~200 persons in each group, and, expecting a response rate of 60–70%, it was decided to start out with samples of 300 physicians in each country.

The physicians were asked about their gender, age, type of practice (solo or group practice) and location (rural or urban). They also stated the approximate number of face-to-face consultations per week, and the number of persons they would like to have on their list if a registration programme is introduced. Finally, they were asked to indicate their level of agreement with 10 different statements on a visual analogue scale (VAS), ranging from 'totally disagree' to 'totally agree'. The VAS measured 76 mm, and the data were analysed as millimetres. However, in this presentation, the final results have been converted to percentages, 100% indicating complete agreement with a statement. The 10 statements are shown in Table 1.

Just prior to this study, the Norwegian government and the Norwegian Medical Association reached an agreement to introduce the registration programme on a national level from 1 June 2001. In a national referendum, 61% of Norwegian GPs (specialists and non-specialists) supported this decision, and eventually 99% have agreed to participate (more or less reluctantly). This makes it difficult to interpret the answers to the last statement in our questionnaire (willingness to participate in a registration system).

In addition to comparing descriptive statistics for Norway and Korea, a similar analysis was performed on the Norwegian subsample, comparing physicians who participated in the pilot registration programme with the rest. Chi-square tests were used for comparing categorical variables, and Mann–Whitney U-tests for comparing continuous variables. A stepwise multiple linear regression analysis was performed using the statement "In principle I favour a registration system" as dependent variable. Explanatory variables in this analysis were all the other variables, except the final statement about willingness actually to participate in a registration system. Similar regression analyses were also performed for each country separately. Significance was accepted at the 5% level ($P < 0.05$).

Results

Seven of the 299 Korean addresses and six of the 300 Norwegian addresses were invalid. After one reminder, 205 Korean and 257 Norwegian respondents were included in the study, giving a total response rate of 79% (462/586). A comparison of the Korean and Norwegian answers is given in Table 1.

Twenty Norwegian GPs were part of the pilot registration programme. They had (or wanted) more persons on their lists [1645, 95% confidence interval (CI) 1484–1807] than the rest of the Norwegian GPs (1348, 95% CI 1300–1396), but reported similar numbers of consultations per week, 83 (95% CI 72–95) versus 83 (95% CI 80–87). The following attitudes differed significantly between the two groups: among the pilot GPs, 86% (95% CI 79–92%) thought that a registration programme would increase continuity, 76% (95% CI 63–89%) responsibility, 72% (95% CI 58–85%) workload and 78% (95% CI 65–92%) were principal supporters of a registration programme.

TABLE 1 *Comparison of responses from Norwegian GP specialists and board-certified Korean family doctors*

	Norway (n = 257)	Korea (n = 205)	Significance
Mean age (years)	49 (48–50)	47 (45–48)	***
Proportion females (%)	15 (11–20)	19 (13–24)	ns
Proportion solo practitioners (%)	19 (14–23)	96 (93–99)	***
Proportion located in urban areas (%)	63 (57–69)	89 (84–93)	***
Mean number of consultations per week	83 (80–87)	388 (359–418)	***
List size wanted in a registration programme	1369 (1323–1416)	3932 (3011–4853)	**
Level of agreement (percentage) with the following statements:			
I am satisfied with the present organization of family practice	71 (68–74)	50 (46–53)	***
I think family doctors should act as gatekeepers, limiting the access to specialists	77 (74–80)	61 (57–65)	***
I think 'doctor shopping' is a problem	55 (51–58)	71 (67–74)	***
I think continuity of care is important	89 (88–90)	85 (83–87)	ns
I think a registration system will increase continuity of care	65 (62–68)	78 (75–81)	***
I think a registration system will increase comprehensiveness of care	62 (59–66)	77 (74–80)	***
I think a registration system will increase my responsibility for my patients	62 (58–66)	81 (78–84)	***
I think a registration system will increase my workload	60 (56–63)	75 (72–78)	***
In principle I favour a registration system	57 (53–61)	70 (66–73)	***
Provided satisfactory income, I would like to participate in a registration system	72 (68–75)	74 (70–77)	ns

Results are given as point estimates with 95% confidence intervals.
***$P < 0.001$; **$P < 0.01$; ns = not significant.

Among the rest of the Norwegian GPs, 63% (95% CI 60–67%) thought that a registration programme would increase continuity, 61% (95% CI 57–65%) responsibility, 59% (95% CI 55–62%) workload and 55% (95% CI 51–60%) were principal supporters of a registration programme.

In the regression analysis, six variables contributed significantly to the variation of the dependent variable. Together, these six variables explained 49% of the variation (adjusted R^2). In the Norwegian sample, seven variables were included in the final model, explaining 47% of the variation. In the Korean sample, four variables contributed significantly, with 54% explained variation (Table 2).

Discussion

The response rate in this study was good, and it is reasonable to assume that the external validity is acceptable. Another indication of validity is the principal attitude towards the registration programme expressed by the Norwegian participants. The results of our study are very similar to those of a recent national referendum among Norwegian GPs.

There are obvious cultural differences between the organization of family practice in Norway and Korea. Nearly all Korean family doctors work in solo practice, while most Norwegian GPs work in group practices. Probably, many of the remaining 19% of Norwegian GPs still in solo practice will join up with others to form group practices now that the registration programme has been introduced. Although patients seem to prefer small practices and personal lists,[15] the complexity and responsibility of a modern registration programme may favour group practices.[14]

The number of consultations per week is several times higher in Korea compared with Norway. High consultation numbers have also been reported from other Asian countries,[16] while Scandinavian countries usually report the lowest numbers in Europe.[17,18]

Average list sizes in the UK and USA are ~1500–2000,[19] which is quite consistent with the list sizes reported by the participants in the Norwegian pilot registration programme. Many participants in this programme (especially female physicians) have reported that the workload is too high,[7,8] and this probably explains why most Norwegian GPs want smaller lists. Since the numbers of consultations were similar in the two groups of Norwegian GPs, it is possible that some now see the registration programme as an opportunity to reduce their workload.

There is less experience with registration programmes in Korea and comparable countries. Therefore, it is probably more difficult for the Korean participants to indicate a hypothetical list size. List size is not necessarily related to number of consultations[20] but, considering the very high number of consultations reported by Korean family doctors, list sizes of nearly 4000 may still be feasible. At the other end of the spectrum, it should be noted that the average list size in Cuba is only 720.[1]

TABLE 2 *Stepwise multiple linear regression analyses with dependent variable: "In principle I favour a registration system"*

Explanatory variables	Standardized coefficients (β)
All	
I think a registration system will increase continuity of care	0.495***
I am satisfied with the present organization of family practice	–0.212***
I think 'doctor shopping' is a problem	0.142***
I think a registration system will increase my responsibility for my patients	0.163***
I think a registration system will increase my workload	–0.132**
Type of practice (solo = 1, group = 2)	0.097*
Norway	
I think a registration system will increase continuity of care	0.446***
I am satisfied with the present organization of family practice	–0.217***
I think a registration system will increase my workload	–0.166**
I think a registration system will increase my responsibility for my patients	0.137*
I think 'doctor shopping' is a problem	0.132*
Type of practice (solo = 1, group = 2)	0.128*
I think continuity of care is important	0.108*
Korea	
I think a registration system will increase comprehensiveness of care	0.440***
I think family doctors should act as gatekeepers, limiting the access to specialists	0.193***
I am satisfied with the present organization of family practice	–0.174**
I think a registration system will increase continuity of care	0.213*

Only explanatory variables contributing significantly to the variation of the dependent variable are included.
***$P < 0.001$; **$P < 0.01$; *$P < 0.05$.

'Doctor shopping' is regarded as a bigger problem in Korea than in Norway. This is in accord with other Asian reports.[21] Still, Korean physicians have less positive attitudes towards gatekeeping than Norwegian GPs. This difference is probably due to the fact that Norwegian GPs already act as gatekeepers and have become used to it. Korean family doctors have no experience with the gatekeeping role. Although most primary care physicians acknowledge the need for rationing health care, it may be difficult actually to do so, face-to-face with patients.[22]

In line with other studies, we found that continuity was considered very important.[12,23] Korean family doctors in particular believed that a registration programme will increase continuity, and were also more confident that a registration programme will make their practice more comprehensive and increase their responsibility and workload. More widespread dissatisfaction with their present organization makes the potential for improvement greater in Korea, and this probably explains Korean doctors' more positive attitude towards a registration programme.

In Norway, many GPs have been sceptical about the introduction of a registration programme, even though a majority of the physicians participating in the trial have recommended it.[7] In our study, the Norwegian GPs who had personal experience with a registration programme were significantly more in favour of the programme, and were also more inclined to think that a registration programme would increase continuity, responsibility and workload. Thus, they were more in agreement with the Korean family doctors than with their Norwegian colleagues. It may seem that nationality *per se* is of little importance in determining the physicians' attitude towards registration programmes. This was also demonstrated in the regression analysis.

The most important predictor of being in favour of a registration programme was the belief that it would increase continuity. Dissatisfaction with the present organization was also a strong predictor. In the Korean subsample, the most important predictor was the belief that it would make a practice more comprehensive. A positive attitude towards gatekeeping was also a positive explanatory factor. These findings probably reflect the present problems of Korean primary care.[2] Norwegian GPs, on the other hand, seem to favour the registration programme if they believe it will not increase their workload. However, increased responsibility seems to be a positive factor. Since an increased workload has been one of the main results reported in the trial programme,[7,8] this finding may explain why ~40% of Norwegian GPs are opposed to the programme.

Conclusions

A typical Korean family doctor is a solo practitioner having almost 400 consultations per week. A typical Norwegian GP works in a group practice and has 80–85 consultations per week. They are both in favour of a registration programme believing that it will increase continuity. In both countries, dissatisfaction with the present system is a strong predictor of being in favour of

a registration programme. In Korea, a positive attitude towards a registration programme is related to being in favour of gatekeeping and believing it will make their practice more comprehensive. Norwegian GPs favour a registration programme on the assumption that it will increase their responsibility, but not their workload.

Acknowledgements

We thank all family doctors who answered our questionnaire. HS received a research grant from Solstrandfondet (an ideal foundation for the support of general practice research) and HJC received a research grant from the Asan Medical Centre.

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