

Patient experience in primary care: association with patient, physician and practice characteristics in a fee-for-service system

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Summary

INTRODUCTION: Nowadays we typically use patient experience as a quality of care indicator, although this has some limitations. The aim of this study was to investigate to what extent patient, physician and practice characteristics were associated with patient-reported experience of care in the major dimensions in family medicine in a fee-for-service system.

METHODS: The data came from the Swiss part of the Quality and Costs of Primary Care (QUALICOPC) study, an international cross-sectional survey. A random sample of 194 Swiss family physicians and 1540 of their patients were included in this analysis. We assessed patient experience using three scores characterising access, communication and continuity-coordination. Multilevel statistical methods were used to analyse these scores based on patient-level, physician-level and practice-level factors.

RESULTS: Poor experience of access was associated with poor health (incidence rate ratio [IRR] 1.91, 95% confidence interval [CI] 1.54–2.55) but was lower among older patients (IRR 0.75, 95% CI 0.63–0.88). Experience of access was also reported as poorer in urban areas and in practices including other paramedical professionals (besides medical assistants) (IRR 1.27, 95% CI 1.06–1.51). Communication was reported as poorer in practices where physicians achieve greater daily face-to-face consultations (IRR 1.16, 95% CI 1.08–1.25) and in patients reporting higher incomes (IRR 1.24, 95% CI 1.01–1.52). Additionally, younger patients reported poorer continuity-coordination experience. In the continuity-coordination domain, patient experience appeared better in group practices (including other family physicians) and in those of physicians with a greater weekly workload in terms of hours. Finally, we found experience of communication and continuity better in the French-speaking area than German-speaking area of Switzerland.

CONCLUSIONS: In this study, we found that patient experience in family medicine in Switzerland was very good for all domains studied; access, family physician-patient

communication and continuity-coordination of care. Most often, predictive factors of care experience relate to the patient's characteristics, such as age and health status. However, several practice characteristics such as size, composition and functioning (in particular, time spent with the patient) represent potential levers for improving patient-reported experience. The variations observed between the three linguistic areas in Switzerland are also interesting, since they raise the issue of the role of socio-cultural factors in this field.

Key words: patient experience, access, communication, coordination, continuity, family medicine, fee-for-service, Switzerland

Introduction

Quality of care is a concept classically used to evaluate and compare primary healthcare systems. Besides clinical and process outcomes or global patient satisfaction tools, patient-reported experience measures appear nowadays to be an essential tool for assessing quality of care [1–10]. Numerous studies have already investigated factors that may be the most predictive for a patient's experience of care. Factors most often reported relate to the patients themselves (ethnic minorities, younger age, multiple chronic conditions) [11–16]. For physician or practice characteristics, small practices, a good team climate and long weekly working hours are associated with a better patient experience [12, 17–21]. However, the findings are somewhat inconsistent or even conflicting and the authors underlined the need for further studies to better investigate the role of practices and contexts [8, 17]. Moreover, previous studies usually focused on one dimension of patient experience [12, 13, 22], and studies combining several dimensions in the same context are sparse. They also often focused on patient characteristics [11, 14, 15, 23] or on physicians or practices [17, 18, 20]; few were able to explore both simultaneously [8, 12, 13]. Finally, most of the studies were conducted in countries with pay-for-performance systems, such as the United Kingdom, with limited choice of provider and where patient experience surveys are used to

Author contributions
NS was in charge of the implementation of the data collection in Switzerland. CC and PW performed the statistical analyses. CC wrote the first draft of the manuscript. All authors have read the paper and made improvements of the content and the wording.
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work out part of the practice's income [8]. In a fee-for-service system like Switzerland, without quality incentives and with a free choice of the practitioner, the impact of the element of satisfaction might be different [24].

The aim of this study was to investigate to what extent patient, physician and practice characteristics are associated with patient experience for major dimensions in family medicine including access, interpersonal communication, continuity and coordination, in the context of a liberal pay-for-service system.

Methods

Study population and setting

Data came from the Swiss participation in the Quality and Costs of Primary Care (QUALICOPC) study, a cross-sectional European survey coordinated by the Nivel Institute from The Netherlands [25]. This project aimed to analyse and compare primary healthcare systems across Europe. Surveys were carried out in 31 European countries (European Union 27 – except France, FYR Macedonia, Iceland, Norway, Switzerland and Turkey) and 3 non-European countries (Australia, Canada and New Zealand). In each country, a random nationally representative sample of around 200 family physicians was drawn. Only one family physician per practice was eligible to participate. In Switzerland, the participating physicians stemmed from a random sample of family physicians stratified by canton, via their participation in a practice-based research network. The representativeness in terms of gender, location and age was cross-checked against national statistics and considered satisfactory [26]. In each practice, nine patients (randomly drawn) filled out a patient experience questionnaire about the consultation that had just taken place. The resulting sample of patients consisted of 1800 persons.

Ethics approval and consent to participate

Ethical approval (Reference CER-VD 410/11) for the QUALICOPC study was acquired in accordance with the legal requirements of each country. Details about the study protocol and questionnaire development have been published elsewhere [25, 27]. The Swiss data collection took place between January and June 2012 in Switzerland and was coordinated by the University of Lausanne.

Our study was approved by the Swiss ethical review board, "Commission cantonale Vaud d'éthique et de recherche sur l'être humain" (Reference CER-VD 410/11). In accordance with the Ethics Committee and to the extent that no biomedical data were collected, the physicians and patients provided their informed oral consent for their participation. In accordance with the contract (INT040-NC24) between the Netherlands Institute for Health Services Research (Nivel) and the national coordinators, the national coordinators were entitled to use their own national data.

Data collection and questionnaires

Family physicians completed a self-administrated questionnaire sent by post. Questions related to personal, organisational and practice characteristics. Sociodemographic features of family physicians were described in terms of sex, age and rural/urban practice areas. Questions regarding organisational and practice characteristics concerned general features including solo/group practice, family

physician in practice as a unique activity, primary care access including consultation length, weekly workload, care collaboration, including workforce in the practice [28]. Exposure to work-related stress among physicians was explored by a proxy of Siegrist's effort/reward imbalance model [29]. The family physician model claims that to the need for a high level of effort at work (both quantitative and qualitative demands) and inadequate rewards in return (in terms of money, esteem from colleagues or society, job security) can generate stress at work. Such repetitive exposures could have an impact both on a physician's well-being and performance [30].

The patient questionnaire was administered by field workers and explored different aspects of their visit relating to access, interpersonal communication, continuity and coordination, comprehensiveness, trust and patient activation. For the present study we focused on the first four issues, which were the most detailed in the questionnaire and considered as major dimensions in primary care evaluation. We investigated experience of access with 10 items, communication with 15 items, continuity and coordination with 10 items (see appendix 1). Sociodemographic characteristics of the patients were sex, age, place of birth, language area (Switzerland includes three main linguistic areas: German, French, Italian), income, level of education and employment status. Moreover, we measured global health with two items: perceived health (four levels from bad to very good) and presence of longstanding illness (yes/no). We also collected information about the number of the visits to a family physician in the last 6 months. Translators translated the initial English master version questionnaire into the three national Swiss languages – German, French and Italian (no cross-validation).

Analysis

For the present analysis, we dropped patients without appointments, considering that their experience might be significantly different (142 patients). A unique practice identification number linked the family physician responses to the responses of his or her patients, allowing for multilevel analyses of the data in order to take into account the nested nature of the observations (nine patients in each practice). All the items exploring experience were coded 0 for positive experience and 1 for negative experience. For each dimension a score of "bad experience" was calculated by adding the responses for each item of the dimension. For each dimension, the item-test correlations, as well as the average inter-item correlation, were very close, meaning that the contribution of each factor to the global score was equivalent. The internal consistency of each score was poor (Cronbach's alpha >0.35 and >0.40) reflecting more a global score for each domain, including several sub-dimensions, rather than a homogeneous variable. Finally, the correlation between dimensions was very low, meaning good independence of the three scores.

Then we carried out analyses in two steps. In the first step, associations between each dimension score of patient experience (dependent variable) and sociodemographic and personal patient characteristics were considered one at a time in multilevel Poisson regression models (this was appropriate considering the low numbers of items reporting bad experience). For reasons of convenience, most of the dependent categorical variables related to practice char-

acteristics were dichotomized. The variables associated at a p-value of 0.2 or less were then included in a multiple model. Finally, we performed a manual backward stepwise selection (removal of the least significant variable at each step) to obtain a final model for patient characteristics (named “final model patients” in the tables). In the second step, we studied separately the association between each dimension (dependent variable) and each family physician characteristic, using the final model selected for patient characteristics. The variables associated with the dimension at a p-value of 0.2 or less were then included in the joint multiple multilevel Poisson regression model. Finally, we performed a manual backward stepwise selection with a p-value for selection set at 5% to obtain a final model including both patient and family physician characteristics (named “global final model” in the tables). Note that the results are expressed as incidence rate ratios (IRRs): for example, an IRR of 1.2 for a given independent variable would mean the score is 20% higher for this variable. Had we considered the number of positive items as dependent variables, no such interpretation would have been possible. Analyses were performed using STATA software.

Results

After exclusion of patients with missing data for any of the studied variables (119 patients), the dataset contained 1540 patients and 199 practices. In the patient sample, 57% were female; the median age was 59 years and 74% of the patients were born in Switzerland. The most frequent reason for the family physician visit was a scheduled appointment (medical check-up, renewal of prescription and other reasons) and not for acute symptoms. We interviewed patients in 199 different practices. Physicians were mainly men (78%), with a median age of 56 years. They worked in group practices in 52% of the cases and in urban areas in 48% (table 1).

The mean score of poor experience regarding access was 0.92/9. When two-way associations were considered, poor experience of access was associated with every sociodemographic feature (except language skills) and personal patient characteristics. In the final multiple model including only patient characteristics, poor experience of access decreased with patient age and level of education, but increased with poor perceived health. Practices in rural areas had lower scores of poor access compared with urban ones (IRR 0.85, 95% confidence interval [CI] 0.73–1.00). The presence of other paramedical disciplines in the practice was also associated with poorer access (IRR 1.27, 95% CI 1.06–1.52). No other physician or practice attribute was associated with patient reported experience of access (table 2).

The mean score of poor experience regarding communication was 1.21/15. In univariate analyses, poor experience was associated with patient sociodemographic features but not with personal medical ones. In multiple analysis, patient gender was associated with poor experience of communication with an IRR of 0.91 (95% CI 0.83–1.01) for women. Poor experience of communication was also lower among French and Italian speaking patients, IRRs of 0.88 (95% CI 0.78–0.99) and 0.54 (95% CI 0.45–0.67), respectively. The association observed with a high level of education persisted in the final model, including both patient and

physician features with IRRs of 0.84 (95% CI 0.75–0.94) with upper secondary and 0.84 (95% CI 0.72–0.97) with post-secondary levels. Communication was better among patients with good language skills, and those who perceived their health as fair compared with very good (IRR 0.84, 95% CI 0.72–0.99). Moreover, poor experience of communication increased with the daily number of face-to-face consultations (IRR 1.16, 95% CI 1.08–1.25) and decreased with the physician’s weekly workload (IRR 0.87, 95% CI 0.81–0.93) (table 3).

The mean score of poor experience for continuity and coordination of care was 1.63/10 (table 1). Younger patients

Table 1: Patient, physician and practice characteristics.

	n	Frequency (%) (or median)
Patients characteristics	1540	
Gender		
Male	671	43.6
Female	869	56.4
Age, median		59
18–41 years	439	28.6
42–58 years	342	22.3
59–70 years	355	23.2
>70 years	397	25.9
Employment status		
Employed, self employed	699	46.2
Student	58	3.8
Unemployment	118	7.8
Retired	638	42.2
Linguistic area		
German	873	56.7
French	490	31.8
Italian	177	11.5
Income		
Below average	218	14.2
Around average	1147	74.5
Above average	175	11.4
Education level		
No qualification	483	31.4
Upper secondary	780	50.6
Post-secondary	277	18.0
Country of birth		
Switzerland	1136	73.8
Other	404	26.2
Main reason of the visit		
Ill or didn't feel well	568	36.9
Other	972	63.1
Longstanding disease		
No	859	55.8
Yes	681	44.2
Perceived health		
Very good	247	16.0
Good	797	51.7
Fair	386	25.1
Poor	110	7.1
Score of poor access (mean/9)	1450	0.92
Score of poor communication (mean/15)	1386	1.21
Score of poor continuity coordination (mean/10)	1036	1.63
Physician and practice characteristics	199	
Gender- female	44	22.4
Age, median		56
Group practice	104	47.4
Rural area	102	52.4

Table 2: Factors associated with poor experience of access in family medicine.

	n	Score of bad access	Single independent variables Patients		Multiple selected independent variables Final model patients [†]		Single independent variables Physicians–practices [‡]		Multiple selected independent variables Global final model [§]	
			IRR	95% CI	IRR	95% CI	IRR	95% CI	IRR	95% CI
Patient demographics										
Gender* – ref. Male	641	0.87	1							
Female	812	0.96	1.10	0.98–1.23						
Age* – ref. ≤41	432	1.03	1		1	–			1	–
42–58	322	1.00	0.94	0.81–1.09	0.87	0.75–1.02			0.86	0.74–1.00
59–70	330	0.83	0.82	0.70–0.96	0.77	0.66–0.92			0.77	0.65–0.90
>70	362	0.81	0.82	0.70–0.96	0.75	0.63–0.88			0.75	0.63–0.88
Language area* – ref. German	823	0.87	1							
French	459	1.02	1.18	0.99–1.41						
Italian	171	0.98	1.12	0.86–1.45						
Employment status – ref. Employed, self employed	673	0.94	1							
Student	57	0.96	1.08	0.81–1.44						
Unemployment	108	1.12	1.15	0.94–1.42						
Retired	590	0.87	0.96	0.85–1.09						
Income – ref. Below average	203	1.06	1							
Around average	1084	0.91	0.88	0.76–1.03						
Above average	166	0.84	0.82	0.66–1.02						
Education level* – ref. No qualification	448	1.04	1						1	–
Post-secondary	740	0.90	0.90	0.79–1.01	0.95	0.83–1.08			0.93	0.82–1.06
Upper secondary	265	0.78	0.72	0.61–0.86	0.78	0.65–0.93			0.78	0.65–0.93
Country of birth* – ref. Switzerland	1071	0.87	1						1	–
Europe, USA, Australia	319	1.02	1.11	0.97–1.27	1.08	0.94–1.23			1.05	0.91–1.21
Other	63	1.36	1.40	1.10–1.78	1.27	0.99–1.63			1.22	0.95–1.56
Language skills – ref. Good	1320	0.92	1							
Poor	100	1.00	1.06	0.86–1.32						
Patient health characteristics										
Existing longstanding disease – ref. No	817	0.90	1							
Yes	636	0.96	1.07	0.96–1.20						
Perceived health* – ref. Very good	235	0.71	1		1				1	–
Good	757	0.86	1.20	1.00–1.43	1.24	1.04–1.49			1.24	1.04–1.50
Fair	363	1.07	1.47	1.22–1.77	1.53	1.26–1.88			1.52	1.27–1.89
Poor	98	1.42	1.93	1.53–2.46	1.96	1.52–2.53			1.91	1.54–2.55
Number of visits in last year – ref. 0	257	0.81	1							
1–4 visits	837	0.93	1.17	1.00–1.37						
≥5 visits	340	0.96	1.19	0.99–1.42						
Reason of the visit* – ref. Others	917	0.86	1		1				1	–
Ill or didn't feel well	536	1.03	1.18	1.05–1.32	1.10	0.98–1.24			1.09	0.97–1.22
Own doctor – ref. No	114	1.13	1							
Yes	1328	0.91	0.83	0.68–1.01*						
Practice variance						0.15				
Physician characteristics										
GP gender – ref. Male	151	0.89					1			
Female	43	1.03					1.09	0.90–1.31		
GP age – ref. <56	94	0.92					1			
≥56 (median)	105	0.93					1.03	0.88–1.20		
Other activities – ref. Yes	129	0.94					1			
No	65	0.89					0.93	0.79–1.10		
Consultation length (min) [¶]	194						1.00	0.93–1.07		
Weekly workload (hours/week) [¶]	194						0.94	0.85–1.05		
Weekly workload (hours/week) with patients [¶]	194						0.95	0.86–1.04		
Number of face-to-face consultations per day [¶]	194						1.04	0.94–1.14		
Effort reward imbalance exposure – ref. No	125	0.94					1			
Yes	68	0.89					0.96	0.81–1.13		
Practice characteristics										
Practice area rural* – ref. Urban	95	1.01					1		1	–
Rural	97	0.86					0.87	0.74–1.02	0.87	0.75–1.01

	n	Score of bad access	Single independent variables Patients		Multiple selected independent variables Final model patients [†]		Single independent variables Physicians–practices [‡]		Multiple selected independent variables Global final model [§]	
			IRR	95% CI	IRR	95% CI	IRR	95% CI	IRR	95% CI
Group practice – ref. No	90	0.92					1			
With other GPs	84	0.95					1.01	0.85–1.19		
With other specialists	8	0.96					0.99	0.66–1.48		
With other GPs and specialists	12	0.78					0.86	0.61–1.21		
Other paramedical disciplines in the practice* – ref. No	152	0.86					1		1	–
Yes	42	1.15					1.27	1.06–1.53	1.27	1.06–1.51
Laboratory access – ref. Same building	129	0.89					1			
Outside	65	0.99					0.94	0.79–1.10		
X-ray access – ref. Same building	112	0.89					1			
Outside	81	0.97					0.95	0.81–1.11		
Nearest GP (not in your group) – ref. Same building	53	0.98					1			
Outside	141	0.90					0.96	0.81–1.14		
Nearest outpatient clinic – ref. Same building	19	0.95					1			
<10 km	145	0.93					1.00	0.77–1.30		
≥10 km	27	0.91					0.99	0.71–1.38		
Nearest hospital – ref <10 km	142	0.92					1			
≥10 km	50	0.95					1.03	0.86–1.23		
Number of hours practice is open	188						0.96	0.91–1.01		
Possible to visit after 18:00 – ref. No	96	0.93					1			
Yes	98	0.91					0.94	0.81–1.10		
Possible to visit on weekend day – ref. No	102	0.98					1			
Yes	91	0.85					0.89	0.76–1.05		
Percentage of consultation by appointment [¶]	193						1.03	0.93–1.15		
Use of PC for recording consultation – ref. No	105	0.91					1			
Yes	89	0.94					1.04	0.89–1.21		
Practice variance										0.14

CI = confidence interval; IRR = incidence rate ratio Multilevel analyses: * variables kept for multiple analyses ($p \leq 0.20$ in multivariate analysis); [¶] interquartile range; [‡] Including final model patient variables; [†] Final model including patients' characteristics [§] Final model including patient and physicians' characteristics

reported poorer experience in univariate as well as multiple analyses. French- or Italian-speaking people also had a better experience in this domain than German patients, with IRRs of 0.81 (95% CI 0.70–0.91) and 0.65 (95% CI 0.54–0.77), respectively. The presence of a chronic disease and the number of visits during the last 6 months were also associated with a better experience of continuity-coordination (IRR of 0.89, 95% CI 0.80–0.98 and 0.78, 95% CI 0.69–0.88, respectively, for one to four visits). Negative experience of continuity coordination was marginally higher with older family physicians (IRR 1.09, 95% CI 0.98–1.21). The physician's weekly workload was negatively associated with poorer coordination-continuity (IRR 0.89, 95% CI 0.82–0.96), whereas the number of practice opening hours was positively associated (IRR 1.04, 95% CI 1.00–1.08). Working with other family physicians was predictive of a lower score for poor continuity-coordination experience compared with working in solo practice (IRR 0.86, 95% CI 0.76–0.97). Finally, among physicians, exposure to stress at work from an effort-reward imbalance was associated with a poorer continuity-coordination experience (IRR 1.09, 95% CI 0.98–1.22) (table 4).

Discussion

Experience in family medical care regarding access, communication and continuity coordination of care in Switzerland seems to be very good. Most of the factors we found associated with poor experiences were related to patient characteristics such as age, linguistic area and health status. However, several factors relating to the physicians and the organisation of the practices were also predictive of experience, depending on the dimension.

Among patients attributes age was an important factor, with younger age associated with poorer experience for two out of three dimensions, namely access and continuity coordination (in the adjusted final models). These results are in line with previous findings [11–14] suggesting that younger patients may be more demanding than older ones [31]. The results also show that a patient's experience is associated with health status, in particular for access and continuity coordination (less clear association for communication), but in a different ways according to the dimension. First, poor experience of access was higher among patients with poor perceived health. This might reflect the difficulties for patients with poor health to reach the practices because of physical limitations, for instance. However, based on more objective indicators such as the presence of chronic disease and the number of visits in family medicine, continuity coordination was reported as higher among patients

Table 3: Factors associated with poor experience of communication in family medicine.

	n	Score of bad communication	Single independent variables Patients		Multiple selected independent variables Final model patients†		Single independent variables Physician-Practices‡		Multiple selected independent variables Global final model§		
			IRR	95% CI	IRR	95% CI %	IRR	95% CI %	IRR	95% CI	
Patient characteristics											
Gender* – ref. Male	611	1.27			1	–			1	–	
Female	775	1.15	0.90	0.82–0.99	0.91	0.82–1.01			0.92	0.83–1.01	
Age* – ref. ≤41	405	1.19	1								
42–58	308	1.24	1.03	0.90–1.18							
59–70	321	1.08	0.92	0.80–1.06							
>70	345	1.30	1.09	0.96–1.25							
Language area* – ref. German	773	1.33	1		1	–			1	–	
French	440	1.18	0.87	0.77–0.98	0.86	0.76–0.97			0.88	0.78–1.00	
Italian	173	0.69	0.51	0.41–0.63	0.53	0.43–0.65			0.55	0.45–0.68	
Employment status – ref. Employed, self employed	634	1.17	1								
Student	57	1.14	0.99	0.76–1.28							
Unemployment	104	1.21	1.06	0.87–1.28							
Retired	556	1.25	1.09	0.98–1.21							
Income* – ref. Below average	197	1.12	1						1	–	
Around average	1031	1.21	1.08	0.93–1.25	1.12	0.96–1.30			1.11	0.95–1.28	
Above average	158	1.28	1.17	0.96–1.42	1.23	1.00–1.50			1.24	1.01–1.52	
Education level* – ref. No qualification	431	1.35	1		1	–			1	–	
Upper secondary	712	1.14	0.86	0.77–0.96	0.84	0.74–0.94			0.84	0.74–0.94	
Post-secondary	243	1.16	0.87	0.75–1.01	0.83	0.71–0.97			0.84	0.72–0.98	
Country of birth – ref. Switzerland	1020	1.20	1								
Europe, USA, Australia	308	1.16	0.97	0.86–1.09							
Other	58	1.46	1.17	0.93–1.48							
Language skills* – ref. Good	1260	1.18	1						1	–	
Poor	95	1.61	1.31	1.10–1.56	1.26	1.05–1.29			1.24	1.04–1.48	
Patient health characteristics											
Existing longstanding disease – ref. No	778	1.21	1								
Yes	608	1.20	1.00	0.90–1.11							
Perceived health* – ref. Very good	218	1.37	1		1	–			1	–	
Good	721	1.17	0.87	0.76–0.99	0.89	0.78–1.02			0.91	0.79–1.04	
Fair	350	1.09	0.83	0.71–0.96	0.84	0.71–0.99			0.85	0.72–0.99	
Poor	97	1.50	1.09	0.89–1.34	1.09	0.88–1.36			1.11	0.90–1.37	
Number of visits last year – ref. 0	241	1.26	1								
1–4 visits	800	1.18	0.95	0.83–1.09							
≥5 visits	327	1.22	0.98	0.84–1.14							
Reason of the visit – ref. Other	876	1.20	1								
Ill or didn't feel well	510	1.22	1.00	0.91–1.11							
Own doctor – ref. No	106	1.42	1								
Yes	1269	1.19	0.88	0.74–1.05							
Practice variance						0.03					
Physician characteristics											
GP gender – ref. Male	151	1.22						1			
Female	43	1.13						0.91	0.79–1.05		
GP age – ref. <56	94	1.23						1			
≥56 (median)	105	1.18						1.01	0.91–1.13		
Other activities – ref. Yes	129	1.21						1			
No	65	1.20						0.97	0.86–1.09		
Consultation length (min)*¶	194							0.94	0.89–0.99		
Weekly workload (hours/week)* ¶	194							0.95	0.89–1.02		
Weekly workload (hours/week) with patients*¶	194							0.94	0.88–1.00*	0.87	0.81–0.93
Number of face-to-face consultations per day*¶	194							1.09	1.01–1.16*	1.16	1.08–1.25
Effort reward imbalance exposure – ref. No	125	1.16						1			
Yes	68	1.29						1.01	0.89–1.13		
Practice characteristics											

	n	Score of bad communication	Single independent variables Patients		Multiple selected independent variables Final model patients [†]		Single independent variables Physician-Practices [‡]		Multiple selected independent variables Global final model [§]	
			IRR	95% CI	IRR	95% CI %	IRR	95% CI %	IRR	95% CI
Practice area – ref. Urban	95	1.18					1			
Rural	97	1.22					1.03	0.92–1.15		
Group practice – ref. No	90	1.18					1			
With other GPs	84	1.23					0.96	0.86–1.08		
With other specialists	8	0.98					0.91	0.66–1.25		
With other GPs and specialists	12	1.32					1.05	0.89–1.32		
Other paramedical disciplines in the practice – ref. No	152	1.21					1			
Yes	42	1.19						0.94–1.23		
Laboratory access – ref. Same building	129	1.16					1			
Outside	65	1.28					0.94	0.83–1.06		
X-ray access – ref. Same building	112	1.21					1			
Outside	81	1.22					1.03	0.91–1.16		
Nearest GP (not in your group) – ref. Same building	53	1.20					1			
Outside	141	1.20					1.04	0.92–1.19		
Nearest outpatient clinic – ref. Same building	19	1.22					1			
<10 km	145	1.18					0.97	0.80–1.17		
≥10 km	27	1.35					1.05	0.84–1.31		
Nearest hospital – ref. <10 km	142	1.17					1			
≥10 km	50	1.28					1.05	0.92–1.18		
Number of hours practice is open	188						0.99	0.96–1.03		
Possible to visit after 18:00 – ref. No	96	0.94					1			
Yes	98	0.91					0.92	0.82–1.03		
Possible to visit on weekend day – ref. No	102	1.19					1			
Yes	91	1.21					0.97	0.87–1.09		
Percentage of consultation by appointment [¶]	194						1.01	0.93–1.09		
Use of PC for recording consultation – ref. No	105	1.12					1			
Yes	89	1.30					1.09	0.97–1.22		
Practice variance										0.02

CI = confidence interval; IRR = incidence rate ratio Multilevel analyses: * variables kept for multiple analyses ($p \leq 0.20$ in multivariate analysis); ¶ interquartile range; ‡ Including final model patient variables; † Final model including patients' characteristics; § Final model including patient and physicians' characteristics

with poor health. This is probably because patients with chronic disease may benefit more from coordinated care and better care management. The discrepancy between the indicators illustrates the importance of not considering patient-reported experience of care as a unique concept, but rather to explore its different components. Interestingly, the analysis showed differences in experience of communication and continuity coordination between different linguistic areas. However, Switzerland has a unique global primary care organisation functioning across the country. The physicians and practice features we included in the analyses do not explain these variations. An explanation might be that the level of expectation regarding care depends on the cultural background, which is different according to the particular linguistic area. This is probably a key element to consider systematically in the field of patient-reported outcome measures, as other authors have already suggested. Regarding this issue, qualitative research that is more relevant than quantitative studies should be developed [22].

Physician and practice attributes were less predictive of poor experience of care, but were also more difficult to investigate in view of the study design. However, several as-

sociations are observed. Patients reported better access in rural areas than in urban ones. In a more detailed analysis (not shown), we observed that for the access score, the items best correlated with the rural or urban areas were difficulty to get an appointment and considering the practice too far from the house. In this latter domain, patients' perceptions of what is acceptable in terms of access might differ according to their rural/urban origin. The presence in the practice of other paramedical professionals (except a medical secretary) was also associated with a poorer experience of access. This result suggests that access is better perceived in small practices – not necessarily in solo practices (no difference observed), but in practices with a small workforce. These results are in line with previous studies, despite differences in the definition of “small practices” [12, 18, 20]. Communication was better when the number of daily face-to-face consultations was lower and when the global time (hours per week) spent with patients was higher. These two results imply that long consultations are associated with a better experience of communication. Some practice characteristics were also found to be associated with a better experience of continuity coordination than others: for example, working with other fam-

Table 4: Factors associated with poor experience of continuity and coordination of care in family medicine.

	n	Score of bad continuity-coordination	Single independent variables Patients		Multiple selected independent variables Final model patient†		Single independent variables Physicians-Practices‡		Multiple selected independent variables Global final model§	
		mean	IRR	95% CI	IRR	95% CI	IRR	95% CI	IRR	95% CI
Patient demographics										
Gender – ref. Male	448	1.66	1							
Female	588	1.60	0.96	0.87–1.06						
Age* – ref. ≤41	344	1.87	1		1	–			1	–
42–58	228	1.59	0.85	0.75–0.96	0.94	0.82–1.07			0.95	0.83–1.10
59–70	238	1.42	0.76	0.66–0.86	0.82	0.72–0.95			0.82	0.71–0.95
>70	223	1.50	0.80	0.70–0.96	0.90	0.78–1.04			0.90	0.78–1.04
Language area* – ref. German	574	1.80	1		1	–			1	–
French	291	1.53	0.84	0.75–0.94	0.81	0.72–0.91			0.81	0.70–0.91
Italian	171	1.19	0.65	0.56–0.76	0.66	0.56–0.76			0.65	0.54–0.77
Employment status – ref. Employed, self employed	504	1.77	1							
Student	50	1.78	1.00	0.80–1.25						
Unemployment	82	1.41	0.80	0.66–0.97						
Retired	382	1.47	0.83	0.75–0.93						
Income* – ref. Below average	148	1.48	1							
Around average	774	1.65	1.13	0.97–1.30						
Above average	114	1.61	1.10	0.90–1.34						
Education level – ref. Post-secondary	320	1.61	1							
No qualification	545	1.60	1.00	0.90–1.12						
Upper secondary	171	1.71	1.05	0.91–1.22						
Country of birth – ref. Switzerland	761	1.61	1							
Europe, USA, Australia	226	1.68	1.04	0.93–1.17						
Other	49	1.69	1.05	0.84–1.31						
Language skills – ref. Good	955	1.62	1							
Poor	64	1.80	1.10	0.90–1.33						
Patient health characteristics										
Existing longstanding disease* – ref. No	600	1.79	1		1				1	–
Yes	436	1.40	0.79	0.71–0.87	0.87	0.79–0.98			0.89	0.78–0.98
Perceived health* – ref. Very good	173	1.98	1							
Good	550	1.61	0.81	0.72–0.92						
Fair	251	1.48	0.74	0.64–0.85						
Poor	62	1.42	0.70	0.55–0.89						
Number of visits last year* – ref. 0	177	2.07	1		1				1	–
1–4 visits	600	1.62	0.78	0.69–0.88	0.78	0.69–0.88			0.78	0.69–0.88
≥5 visits	244	1.31	0.63	0.55–0.74	0.65	0.56–0.76			0.65	0.55–0.76
Reason of the visit* – ref. Other	655	1.59	1							
Ill or didn't feel well	381	1.69	1.06	0.96–1.17						
Practice variance						8.10 ⁻³⁶				
Physician characteristics										
GP gender – ref. Male	151	1.62					1			
Female	43	1.63					1.02	0.90–1.15		
GP age* – ref. <56	94	1.57					1		1	–
≥56 (median)	105	1.67					1.08	0.98–1.19	1.09	0.98–1.21
Other activities – ref. Yes	129	1.63					1			
No	65	1.61					1.00	0.90–1.11		
Consultation length (min)¶	194						1.00	0.85–1.05		
Weekly workload (hours/week)* ¶	194						0.96	0.90–1.02	0.89	0.82–0.96
Weekly workload (hours/week) with patient¶	194						0.99	0.93–1.05		
Number of face-to-face consultations per day¶	194						0.99	0.94–1.06		
Effort reward imbalance exposure* – ref No	125	1.53					1		1	–
Yes	68	1.81					1.10	0.99–1.22	1.09	0.98–1.22
Practice characteristics										
Practice area rural – ref. Urban	95	1.59					1			
Rural	97	1.65					1.00	0.91–1.11		

	n	Score of bad continuity-coordination	Single independent variables Patients		Multiple selected independent variables Final model patient†		Single independent variables Physicians-Practices‡		Multiple selected independent variables Global final model§	
		mean	IRR	95% CI	IRR	95% CI	IRR	95% CI	IRR	95% CI
Group practice* – ref. No	90	1.64					1		1	–
With other GPs	84	1.59					0.91	0.82–1.01	0.86	0.76–0.97
With other specialists	8	1.21					0.77	0.58–1.02	0.79	0.59–1.05
With other GPs and specialists	12	2.04					1.19	0.98–1.46	1.05	0.84–1.30
Other paramedical disciplines in the practice – ref. No	152	1.62					1			
Yes	42	1.64					1.08	0.96–1.22		
Laboratory access – ref. Same building	129	1.62					1			
Outside	65	1.62					1.01	0.90–1.12		
X-ray access – ref. Same building	112	1.61					1			
Outside	81	1.65					1.00	0.91–1.11		
Nearest GP (not in your group) – ref. Same building	53	1.57					1			
Outside	141	1.64					1.07	0.96–1.20		
Nearest outpatient clinic – ref. Same building	19	1.48					1			
<10 km	145	1.63					1.08	0.90–1.28		
≥10 km	27	1.61					1.03	0.83–1.28		
Nearest hospital – ref. <10 km	142	1.60					1		1	
≥10 km	50	1.69					1.03	0.92–1.15		
Number of hours practice is open*	188						1.02	0.99–1.06	1.04	1.00–1.08
Possible to visit after 18:00 – ref. No	96	1.66					1			
Yes	98	1.59					0.99	0.89–1.09		
Possible to visit on weekend day* – ref. No	102	1.52					1		1	–
Yes	91	1.73					1.10	0.99–1.21	1.09	0.98–1.21
Percentage of consultation by appointment¶	193						1.00	0.94–1.07		
Use of PC for recording consultation – ref. No	105	1.58					1			
Yes	89	1.71					1.04	0.94–1.15		
Practice variance										3.10 ⁻²⁰⁴

CI = confidence interval; IRR = incidence rate ratio Multilevel analyses: * variables kept for multiple analyses ($p \leq 0.20$ in multivariate analysis); ¶ interquartile range; ‡ Including final model patient variables; † Final model including patients' characteristics; § Final model including patient and physicians' characteristics

ily physicians, a higher number of opening hours, the impossibility to visit the family physician on weekend days and the physician's weekly workload (global time and not time spent with the patient). If the two first associations are easy to interpret, the last two are more surprising at first glance. Possibility to visit on weekend days and long opening hours are more often encountered in larger shared practices with both family physicians and specialists, which revealed higher scores of poor continuity; if we drop these practices from the analysis, the results are no longer significant.

The concept of imbalance between effort at work and rewards in return, in terms of money, esteem from colleagues or society and job security, is well known. A more detailed analysis showed that the continuity-coordination dimension was preferentially associated with items relating to the dissemination of information between family physicians or between family physicians and specialists. We assumed that family physicians having a feeling of low esteem from colleagues might be less willing to share and exchange information. Few studies, with inconsistent results, have investigated this issue, but Campbell et al. also described better patient satisfaction in practices with a good team climate [20, 21, 32–34].

The results of this study should be interpreted with its limitations in mind. The representativeness of the samples

might be biased, in particular the physician sample. Despite random sampling and good representativeness in terms of age, gender and rural/urban partition [26], the low participation acceptance rate in a practice-based research network (although classically observed) might introduce some level of bias for other unmeasured characteristics. In particular, participation in a research network might select physicians with specific modes of organisation or functioning. Additionally, the German-speaking physicians are a little under-represented in the network (less than 10% variation), probably because of the research team is based in the French-speaking area. Even though we cannot accurately estimate the impact of such potential biases, we assume that their impact on the results is negligible. Moreover, the lack of representativeness is less problematic in analytical analyses than in descriptive ones. Conversely, the participation rate among patients was high (around 84%), but data collection at the practice may have generated a declaration bias. A relatively small sample size, particularly regarding physician data, probably limits the possibility of observing more significant associations. Due to "missing" and sometimes "non-applicable" data related to each item, the number of respondents for each of the three dimensions was not the same. This could be a limitation in the objective to compare the results of the three multiple

models. Lastly, the study was cross-sectional and thus the causal nature of the associations cannot be assessed.

Conclusion

According to our study, in Switzerland, with a liberal fee-for-services healthcare system and free choice of the physician, patient experience in family medicine is very good, regardless of the domain (access, family physician-patient communication or continuity coordination of care). Having patient, physician and practice data allowed us to show that variations in patients' reported experience were mainly due to patient characteristics, in particular, age and health status. However, associations between patient experience and some practice characteristics or organisation deserve attention for overall improvement of quality of care. In particular, intermediate-sized practices (between solo practices and large clinics), providing substantial time spent with the patients, represent an interesting configuration for best patient experience. Finally, the issue regarding the role of cultural aspects in patient reported experience, illustrated in this Swiss context, remains relevant, pertaining to quality of care, wherever the healthcare system.

Availability of data and material

The dataset generated and analysed during the current study is not publicly available, as it is a part of an international study under agreement. However data may be available from the corresponding author on reasonable request.

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Potential competing interests

The authors declare no competing interests.

References

- Black N, Burke L, Forrest CB, Sieberer UH, Ahmed S, Valderas JM, et al. Patient-reported outcomes: pathways to better health, better services, and better societies. *Qual Life Res.* 2016;25(5):1103–12. doi: <http://dx.doi.org/10.1007/s11136-015-1168-3>. PubMed.
- Manary MP, Boulding W, Staelin R, Glickman SW. The patient experience and health outcomes. *N Engl J Med.* 2013;368(3):201–3. doi: <http://dx.doi.org/10.1056/NEJMp1211775>. PubMed.
- Wong ST, Haggerty J. Measuring patient experiences in primary health care. Vancouver: Centre for Health Services and Policy Research. 2013.
- Browne K, Roseman D, Shaller D, Edgman-Levitan S. Analysis & commentary. Measuring patient experience as a strategy for improving primary care. *Health Aff (Millwood).* 2010;29(5):921–5. doi: <http://dx.doi.org/10.1377/hlthaff.2010.0238>. PubMed.
- Sequist TD, Schneider EC, Anastario M, Odigie EG, Marshall R, Rogers WH, et al. Quality monitoring of physicians: linking patients' experiences of care to clinical quality and outcomes. *J Gen Intern Med.* 2008;23(11):1784–90. doi: <http://dx.doi.org/10.1007/s11606-008-0760-4>. PubMed.
- Groenewegen PP, Kerssens JJ, Sixma HJ, van der Eijk I, Boerma WG. What is important in evaluating health care quality? An international comparison of user views. *BMC Health Serv Res.* 2005;5(1):16. doi: <http://dx.doi.org/10.1186/1472-6963-5-16>. PubMed.
- Kerssens JJ, Groenewegen PP, Sixma HJ, Boerma WG, van der Eijk I. Comparison of patient evaluations of health care quality in relation to WHO measures of achievement in 12 European countries. *Bull World Health Organ.* 2004;82(2):106–14. PubMed.
- Salisbury C, Wallace M, Montgomery AA. Patients' experience and satisfaction in primary care: secondary analysis using multilevel modelling. *BMJ.* 2010;341(oct12 1):c5004. doi: <http://dx.doi.org/10.1136/bmj.c5004>. PubMed.
- Sixma HJ, Kerssens JJ, Campen CV, Peters L. Quality of care from the patients' perspective: from theoretical concept to a new measuring instrument. *Health Expect.* 1998;1(2):82–95. doi: <http://dx.doi.org/10.1046/j.1369-6513.1998.00004.x>. PubMed.
- Bleich SN, Ozaltin E, Murray CK. How does satisfaction with the health-care system relate to patient experience? *Bull World Health Organ.* 2009;87(4):271–8. doi: <http://dx.doi.org/10.2471/BLT.07.050401>. PubMed.
- Campbell JL, Ramsay J, Green J. Age, gender, socioeconomic, and ethnic differences in patients' assessments of primary health care. *Qual Health Care.* 2001;10(2):90–5. doi: <http://dx.doi.org/10.1136/qhc.10.2.90>. PubMed.
- Kontopantelis E, Roland M, Reeves D. Patient experience of access to primary care: identification of predictors in a national patient survey. *BMC Fam Pract.* 2010;11(1):61. doi: <http://dx.doi.org/10.1186/1471-2296-11-61>. PubMed.
- Muggah E, Hogg W, Dahrouge S, Russell G, Kristjansson E, Muldoon L, et al. Patient-reported access to primary care in Ontario: effect of organizational characteristics. *Can Fam Physician.* 2014;60(1):e24–31. PubMed.
- Lyratzopoulos G, Elliott M, Barbiere JM, Henderson A, Staetsky L, Paddison C, et al. Understanding ethnic and other socio-demographic differences in patient experience of primary care: evidence from the English General Practice Patient Survey. *BMJ Qual Saf.* 2012;21(1):21–9. doi: <http://dx.doi.org/10.1136/bmjqs-2011-000088>. PubMed.
- Mead N, Roland M. Understanding why some ethnic minority patients evaluate medical care more negatively than white patients: a cross-sectional analysis of a routine patient survey in English general practices. *BMJ.* 2009;339(sep16 3):b3450. doi: <http://dx.doi.org/10.1136/bmj.b3450>. PubMed.
- Paddison CA, Saunders CL, Abel GA, Payne RA, Campbell JL, Roland M. Why do patients with multimorbidity in England report worse experiences in primary care? Evidence from the General Practice Patient Survey. *BMJ Open.* 2015;5(3):e006172. doi: <http://dx.doi.org/10.1136/bmjopen-2014-006172>. PubMed.
- Heje HN, Vedsted P, Sokolowski I, Olesen F. Doctor and practice characteristics associated with differences in patient evaluations of general practice. *BMC Health Serv Res.* 2007;7(1):46. doi: <http://dx.doi.org/10.1186/1472-6963-7-46>. PubMed.
- Haggerty JL, Pineault R, Beaulieu MD, Brunelle Y, Gauthier J, Goulet F, et al. Practice features associated with patient-reported accessibility, continuity, and coordination of primary health care. *Ann Fam Med.* 2008;6(2):116–23. doi: <http://dx.doi.org/10.1370/afm.802>. PubMed.
- Eide TB, Straand J, Melbye H, Rortveit G, Hetlevik I, Rosvold EO. Patient experiences and the association with organizational factors in general practice: results from the Norwegian part of the international, multi-centre, cross-sectional QUALICOPC study. *BMC Health Serv Res.* 2016;16(1):428. doi: <http://dx.doi.org/10.1186/s12913-016-1684-z>. PubMed.
- Campbell SM, Hann M, Hacker J, Burns C, Oliver D, Thapar A, et al. Identifying predictors of high quality care in English general practice: observational study. *BMJ.* 2001;323(7316):784–7. doi: <http://dx.doi.org/10.1136/bmj.323.7316.784>. PubMed.
- Beaulieu MD, Haggerty J, Tousignant P, Barnsley J, Hogg W, Geneau R, et al. Characteristics of primary care practices associated with high quality of care. *CMAJ.* 2013;185(12):E590–6. doi: <http://dx.doi.org/10.1503/cmaj.121802>. PubMed.
- Rocque R, Leanza Y. A Systematic Review of Patients' Experiences in Communicating with Primary Care Physicians: Intercultural Encounters and a Balance between Vulnerability and Integrity. *PLoS One.* 2015;10(10):e0139577. doi: <http://dx.doi.org/10.1371/journal.pone.0139577>. PubMed.
- Kert S, Švab I, Sever M, Makivić I, Pavlič DR. A cross-sectional study of socio-demographic factors associated with patient access to primary care in Slovenia. *Int J Equity Health.* 2015;14(1):39. doi: <http://dx.doi.org/10.1186/s12939-015-0166-y>. PubMed.
- Papanicolas I, Cylus J, Smith PC. An analysis of survey data from eleven countries finds that 'satisfaction' with health system performance means many things. *Health Aff (Millwood).* 2013;32(4):734–42. doi: <http://dx.doi.org/10.1377/hlthaff.2012.1338>. PubMed.
- Schäfer WL, Boerma WG, Kringos DS, De Maeseneer J, Gress S, Heinemann S, et al. QUALICOPC, a multi-country study evaluating

- quality, costs and equity in primary care. *BMC Fam Pract.* 2011;12(1):115. doi: <http://dx.doi.org/10.1186/1471-2296-12-115>. PubMed.
- 26 Selby K, Cornuz J, Senn N. Establishment of a Representative Practice-based Research Network (PBRN) for the Monitoring of Primary Care in Switzerland. *J Am Board Fam Med.* 2015;28(5):673–5. doi: <http://dx.doi.org/10.3122/jabfm.2015.05.150110>. PubMed.
- 27 Schäfer WL, Boerma WG, Kringos DS, De Ryck E, Greß S, Heinemann S, et al. Measures of quality, costs and equity in primary health care instruments developed to analyse and compare primary care in 35 countries. *Qual Prim Care.* 2013;21(2):67–79. PubMed.
- 28 Cohidon C, Cornuz J, Senn N. Primary care in Switzerland: evolution of physicians' profile and activities in twenty years (1993–2012). *BMC Fam Pract.* 2015;16(1):107. doi: <http://dx.doi.org/10.1186/s12875-015-0321-y>. PubMed.
- 29 Siegrist J. Adverse health effects of high-effort/low-reward conditions. *J Occup Health Psychol.* 1996;1(1):27–41. doi: <http://dx.doi.org/10.1037/1076-8998.1.1.27>. PubMed.
- 30 Siegrist J, Shackelton R, Link C, Marceau L, von dem Knesebeck O, McKinlay J. Work stress of primary care physicians in the US, UK and German health care systems. *Soc Sci Med.* 2010;71(2):298–304. doi: <http://dx.doi.org/10.1016/j.socscimed.2010.03.043>. PubMed.
- 31 Kong MC, Camacho FT, Feldman SR, Anderson RT, Balkrishnan R. Correlates of patient satisfaction with physician visit: differences between elderly and non-elderly survey respondents. *Health Qual Life Outcomes.* 2007;5(1):62. doi: <http://dx.doi.org/10.1186/1477-7525-5-62>. PubMed.
- 32 Linzer M, Manwell LB, Williams ES, Bobula JA, Brown RL, Varkey AB, et al.; MEMO (Minimizing Error, Maximizing Outcome) Investigators. Working conditions in primary care: physician reactions and care quality. *Ann Intern Med.* 2009;151(1):28–36, W6-9. doi: <http://dx.doi.org/10.7326/0003-4819-151-1-200907070-00006>. PubMed.
- 33 Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *Lancet.* 2009;374(9702):1714–21. doi: [http://dx.doi.org/10.1016/S0140-6736\(09\)61424-0](http://dx.doi.org/10.1016/S0140-6736(09)61424-0). PubMed.
- 34 Williams ES, Skinner AC. Outcomes of physician job satisfaction: a narrative review, implications, and directions for future research. *Health Care Manage Rev.* 2003;28(2):119–39. doi: <http://dx.doi.org/10.1097/00004010-200304000-00004>. PubMed.

Appendix 1

Patient experience measures – list of items for each dimension**Dimensions and items**

Access
The practice is too far from where I am living
The opening hours are too restricted
It is difficult to see a GP during evenings, nights, weekends
If I need a home visit, I can get one
It was easy to get the appointment
I had to wait too long to speak to someone
How long did you wait between arriving and the consultation
The doctor took sufficient time
You had to postpone or abstain for a visit
Communication
The Dr listened carefully to me
The Dr asked questions about my health problem
I did not really understand what the doctor was explaining
The doctor was polite
The Dr hardly looked at me when we talked
People were helpful and polite at the reception desk
Dr or staff acted negatively to you
Other patients were treated better than you
Dr or staff showed disrespect because of ethnic background
Dr or staff showed disrespect because of your gender
The Dr involved me in making decisions about treatment
Dr would be prepared to discuss TRT with you
When I am referred my GP decides to whom I should go
The Dr asked about possible other problem
The Dr can also help with personal problem and worries
Continuity–coordination
Do you have your own doctor
The Dr knows about my living situation
The Dr had my medical records on hand
The Dr knows information about my background
A Dr of this practice asked about all medications you take
If I visit another GP, he has necessary information about me
My GP informs the medical specialist when I am referred
After treatment by a medical specialist, my GP knows the results
It's difficult to get a referral to a specialist from my GP
In the last year, have you been examined or treated by a nurse