
Qualitative Research

General practitioners' perception of being a doctor in urban vs. rural regions in Germany - A focus group study

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Abstract

Background. Inadequate recruitment numbers for GPs in rural regions give cause for concern. Working in rural regions is less attractive among medical students because of strong associations concerning a higher workload, restriction of privacy and demands exceeding their competences. We aimed to explore perceptions of GPs working in urban versus rural regions to contrast these prejudices.

Methods. We conducted nine focus groups with GPs [female = 21, male = 44] from urban and rural regions, using a semi-structured guideline. Transcripts were content analyzed using deductive and inductive categories.

Results. Urban GPs perceived themselves as a provider of medical services and rural GPs as being a medical companion. Compared to urban GPs, GPs from non-urban regions portray themselves more strongly as a family physician that accompanies patients 'from the cradle to the grave' and is responsible for the treatment of any medical issue. They emphasized their close relationship with their patients. Rural GPs establish a close relationship with their patients and considered this as beneficial for the treatment relationship. This aspect seems to play a subordinate role for urban GPs.

Conclusions. GPs enjoy their work and the role they play in their patients' lives. Being a rural GP was described very positively. Greater emphasis should be made on positive aspects of being a GP in rural regions, e.g. by university lectures given by rural GPs, campaigns emphasizing the positive aspects of working as a GP [in rural regions], promotion of work placements or incentives for working in rural general practices.

Keywords: Community medicine, GPs, primary health care, public health, qualitative research, rural health.

Background

In Germany, the statutory health insurance system covers the health care of about 90% of all patients. Primary health care is provided by independent general practitioners (GPs) working in GP practices outside hospitals or clinics on a self-employment basis. Even though GPs are free to choose their region of registration the number of GP surgeries in every region is regulated by legal requirements. Until the end of 2011, GPs were obliged to live close to their GP practice. This created

different conditions for GPs depending on whether they registered and therefore lived in an urban or a non-urban region. Patients are free to choose or change their GPs (1).

Many sources see indications for an upcoming paucity of GPs (2,3) and the difficulties to recruit GPs, especially in rural regions are a cause for concern, not only in Germany (4–8). GPs in urban and rural areas are confronted with different health care infrastructures and different working conditions. Studies indicate variations between different regions concerning the supply, the access to and

the utilization of health care services though rural areas tend to have the more unfavourable characteristics (9–13).

Working in rural regions has a negative reputation among medical students (14) and is associated with a higher workload (15). Perceptions of working conditions in rural areas are characterized by a 24/7-availability, a restriction of privacy, heavy workloads and/or demands exceeding GPs' competences (16). Positive aspects of being a GP in rural areas are, e.g. a more flexible work schedule, the high recreational value of the surrounding areas (17,18), a better reputation among patients and less competition (19). Another study from North Rhine-Westphalia, Germany (20) identified close physician–patient relationships and comprehensive medical treatment as essential characteristics in rural areas. The—to our knowledge—only study from Germany which focuses on the self-perception of GPs (21) reports positive self-awareness and a high satisfaction level concerning their multifaceted work, their responsibilities, duties and functions, but does not compare urban and rural GPs. Another qualitative study (19) examines aspects of GPs' duties and functions in rural areas from rural GPs' perspective. Positive aspects were a higher social status, higher medical skills according to patients and varied work. Negative aspects were the demand of constant availability, the high level of responsibility for patients, lower income and a large amount of overtime.

Research tends to focus either on the entirety of GPs or rural GPs. The assumed negative aspects of working as a GP in urban regions have not been investigated yet. Furthermore, perceptions of being a rural versus urban GP have not been compared until now. Results of such research could complement the negative views on being a country doctor. It may help to promote the attractiveness of working as a GP in rural areas and the equal distribution of country and city GP practices. Therefore, the aim of our study was to explore and compare rural and urban GPs' subjective perceptions of their duties, the physician–patient relationship as well as positive and negative aspects of working as a rural versus urban GP in Germany.

Methods

Study design

This exploratory qualitative study is part of the project 'Regional variation in the primary medical care of Northern Germany [AVFN-Regional]' [(22), ClinicalTrials.gov NCT02558322]. It comprises focus groups with GPs registered in Northern Germany [Hamburg, Schleswig-Holstein, Lower Saxony and Mecklenburg-West Pomerania].

Recruitment

The participants were selected according to the criteria 'area of registration' [criteria-controlled sampling (23)]. They were assigned to one of three region types: 'urban area', surrounding areas, here called 'environs' and 'rural area' according to the definition of the German Federal Institute for Research on Building, Urban Affairs and Spatial Development [BBSR (24), further details also in ref. (22)]. Four types of settlement structures are differentiated: (i) District-free cities [urban municipalities] with at least 100 000 inhabitants; (ii) urban districts [districts with at least 50% of the inhabitants living in cities with more than 20 000 inhabitants and at least 150 inhabitants/km² plus districts with more than 150 inhabitants/km² without cities with more than 20 000 inhabitants]; (iii) rural districts with signs of agglomeration [districts with at least 50% of the inhabitants living in cities with more than 20 000 inhabitants but less than 150

inhabitants/km² plus districts with less than 50% of the inhabitants living in cities with more than 20 000 inhabitants but less than 150 inhabitants/km² without cities with more than 20 000 inhabitants] and (iv) sparsely populated rural districts [districts with less than 50% of the inhabitants living in cities with more than 20 000 inhabitants and less than 100 inhabitants/km²]. In our study areas falling under the definition of district free cities [urban municipalities] were called 'urban', areas falling under the definition of urban districts (ii) and rural districts with signs of agglomeration (iii) were summed up under the term 'environs' and areas falling under the definition of sparsely populated rural districts (iv) are 'rural areas'. We excluded all GPs from cities in rural areas with populations over 20 000 in order to avoid a bias by GPs practicing in bigger cities in rural areas.

The included districts and cities are shown in Table 1.

Inclusion/exclusion criteria: The German health insurance system is characterized by the dual system of statutory health insurance and private health insurance. The majority of the German GPs are statutory health insurance physicians. They are allowed to treat patients insured by statutory [approximately 90% of all patients in Germany] and private health insurances and get reimbursed by both. Providing health care services differs between these two systems and may also influence the self-perception of being a doctor. To avoid this topic, we chose to focus on the statutory health insurance only. Therefore, GPs had to work within the statutory health insurance system to be eligible for this study.

In March 2014, we randomly chose 1910 GPs [practicing in selected districts of Hamburg, Schleswig-Holstein, Lower Saxony and Mecklenburg-West Pomerania] from the database of the Association of Statutory Health Insurance Physicians to be invited to our study. GPs received written information and an invitation to participate in the focus groups via mail. Willingness to participate was indicated by returning an answer letter via fax. All participants gave written, informed consent to participate in the study and received an allowance for their participation which included a reimbursement of travel costs.

Data collection

We conducted focus groups with five to nine participants in six different locations to allow participants from different regions to

Table 1. Districts included in the exploratory qualitative focus group study

Federal state	District/city	Region type
Hamburg	Hamburg	Urban area
	Schleswig Holstein	Lübeck
Lower Saxony	Kiel	Urban area
	Stormarn	Environs
	Pinneberg	Environs
	Segeberg	Environs
	Herzogtum Lauenburg	Environs
	Dithmarschen	Rural area
	Steinburg	Rural area
	Harburg	Environs
	Stade	Environs
	Rotenburg (Wümme)	Rural area
	Heidekreis	Rural area
Mecklenburg- West Pomerania	Lüneburg	Rural area
	Schwerin	Environs
	Nordwestmecklenburg	Environs
	Ludwigslust-Parchim	Rural area

reach the meeting easily. Focus groups took place between May and November 2014 and were facilitated by at least two experienced moderators [HH, IS, NJP and AS]. The focus groups were conducted using a semi-structured interview guideline [topics: general duties and patients, differences between working in urban and rural regions] and lasted approximately 120 minutes. They were digitally recorded, logged and transcribed verbatim following designated transcription rules by trained research assistants. Transcripts were checked for accuracy by HH. In order to protect the participants' identity, all names were replaced by numbers and all potentially identifying details were changed.

Data analysis

The transcripts were analyzed using qualitative content analysis (25). This procedure extracts and preserves the essential content of the data, while significantly reducing the amount of data. Deductive categories were inferred from the interview guideline. However, due to the exploratory character of the study the main focus was set on inductive category development. NJP and HH coded all transcripts independently. All categories, category descriptions and examples were then discussed until consensus was reached by HH and NJP. To secure intersubjective comprehensibility and credibility (26) of the analysis the results were discussed in a meeting of an interdisciplinary work group for qualitative methods. The revised categories were discussed with the other two authors until consensus was reached and the material was subjected to a second round of coding by NJP. Data were managed using MAXQDA 11 [Verbi GmbH].

We started data analysis by comparing GPs' accounts along with the three predefined region types [GPs from urban areas, environs and rural areas]. Soon it became apparent that within the focus groups the participating GPs predominantly differentiated between concepts of urban versus rural areas only. Accounts on self-perception of GPs from environs and rural areas were very similar while accounts on self-perception of GPs working in urban areas were rather the opposite. Most of the GPs registered in areas classified as environs according to the abovementioned definition seemed to consider themselves to be rural GPs. In order to guarantee a logic way of presenting our results, we decided to combine the categories environs and rural areas into a new category called non-urban areas.

Results

Sample characteristics

We conducted nine focus groups with 21 female and 44 male GPs [three groups in each area: urban areas, environs and rural areas]. Table 2 shows an overview of GPs' characteristics.

Concerning GPs' perception of being a GP in urban versus rural regions, we found three main categories with subcategories. Table 3 gives an overview of these main categories and their subcategories. It indicates the affirmation to each category by GPs from different regions. Focus groups were conducted in German. All citations used in this article were translated by a native speaker from Canada and double-checked by HH and NJP. Citations are marked with single quotation marks and are in italics. [...] marks an omission in a citation. Paragraph numbers and focus group indicators were added.

Duties of a GP

Family physician/'from the cradle to the grave'

Many GPs described themselves as family physicians, emphasizing the importance of the long-term physician-patient relationship

Table 2. Description of the study participants: GPs ($n = 65$, three groups in each region)

	Urban area ($N = 24$)	Environs ($N = 19$)	Rural area ($N = 22$)
Gender:			
Male	18	14	12
Female	6	5	10
Number of patients treated in practice in each quarter:			
Up to 749 patients	42%	5%	9%
750 patients and more	58%	95%	91%
Number of physicians working in practice:			
1	21%	48%	41%
2	46%	21%	46%
3	17%	21%	14%
4	13%	5%	0%
5	4%	5%	0%
Years of practice: mean \pm SD	17.4 \pm 10.0	12.4 \pm 9.4	15.4 \pm 9.2
Type of practice:			
Single practice	25.0%	52.6%	50.0%
Group practice (common accounting ^a)	54.2%	42.1%	36.4%
Community practice (separate accounting ^a)	20.8%	5.3%	13.6%

^aAccounting = administrative functions and invoicing of medical services.

Table 3. Summary of the identified categories

Categories from focus groups with GPs	Non-urban GPs	Urban GPs
Duties of a GP		
Family physician/'from the cradle to the grave'	++	+
'I do everything that comes up'	++	+
Primary contact for everything	++	+
Physician-patient relationship		
We know our patients inside out	++	+
Our patients also know us very well	+	-
City versus country doctor		
Intrusiveness of patients—expecting permanent accessibility	+	-
Positive aspects of being a country doctor	++	-
Provider of medical services	-	+

++, strong affirmation in the material; +, moderate affirmation in the material; -, little/no affirmation in the material.

through different phases of life and treating more than one generation in families. This is related to a high perceived workload but the variety of demands, duties and the almost parental relationship with the patients is considered very rewarding by the GPs. 'Family medicine' (paragraph 170, urban GPs group B) seems to be considered the ideal of primary care. All in all, there seemed to be a stronger focus on these aspects in the focus groups with participants from non-urban areas.

'[...] what I find great is that we treat entire generations from babies to grandmothers [...]. I believe that this is different in cities, since there is a higher fluctuation there.' (Paragraph 231, rural GPs group A)

'I have a grown district in (town A) and there are actually families in 4 generations. Well, there are groups where one...well sometimes it's like...Sex and crime, well, because one hears the story from all different sides of the family, to hear the family stories can be very interesting with the different views on things, to

hear how things happened, that is totally interesting.' (Paragraph 206, urban GPs group C)

'I do everything that comes up'

The interviewed GPs perceived themselves responsible for everything considering medical issues, but also competent enough to meet this demand. Especially non-urban GPs often mentioned having to deal with all kind of medical issues to the point of serving as a replacement for specialists [e.g. due to the lack of specialists, long waiting times]. GPs believed that rural GPs cover a greater range of consultation reasons than urban GPs, non-urban GPs are *'not simply degraded to a form-completing bureaucrat of a physician [...]'* (paragraph 290, rural GPs group B). In contrast to rural GPs, GPs from urban areas and environs stated more often that they do not feel obliged to treat everything and everyone.

'Also, I believe that general practitioners working as country doctors have to fulfil more special competencies and greater requirements than, than the city doctors.' (Paragraph 802, urban GPs group A)

Primary contact for everything [substitute for specialists and emergency services]

The majority of the focus group participants perceived themselves to be their patients' primary contact person for all medical issues, although they claim there are differences in patients' utilization of this function in urban and rural areas due to differences in *'density of specialists'* (paragraph 271, rural GPs group B). In most focus groups, GPs referred to physicians with different specializations as *'Fachärzte'* (specialists) implying that they do not see themselves as specialized in general medicine but as generalists. This implies a differentiation between specialists for general medicine and all other specialists, which cannot be adequately translated to English.

'[...] On the other hand there are the patients [...] who always consult a specialist, for which we don't issue letters of referral [...]' (Paragraph 338, urban GPs group C)

The challenge of being the primary contact person [and—at least in non-urban areas—being the physician supplying follow-up treatments in case of missing or unavailable specialists] is often considered positively and rewarding. Furthermore, GPs from non-urban areas often declared their patients try to avoid calling ambulances or using emergency treatment options. They would prefer to wait for their GPs consultation hours or for them to return from vacations instead of contacting another physician.

'What I find so special here is that one is actually the first point of contact for many diseases. One is the first to see a patient and has to make a diagnosis. And that is exciting and interesting but also sometimes overwhelming, as one does not have a specialist nearby, where one can say "Just go over there quickly." or "Go see them". [...] The specialist is already fully booked if there is one at all.' (Paragraph 248, rural GPs group C)

Physician–patient relationship

We know our patients inside out

Especially GPs from non-urban areas emphasized having long and trustful relationships with their patients, knowing many of them also outside the context of medical treatment. Patients seldom change

their GPs and medical reports from specialists and discharge letters reach the non-urban GP's practice more often than in urban practices.

'[...] We have [...] not as many gaps as a city physician, who likely doesn't receive all the specialists' reports, which is why we are more comprehensively informed about our patients.' (Paragraph 281, rural GPs group B)

Most GPs consider the close relationship with their patients as positive rather than negative. They also consider this kind of close and long-term relationship to be beneficial for treatment. Establishing such a relationship is considered to be much harder for urban GPs.

'It was impressive to hear from a GP surgery located near the train station that many patients especially the young ones just show up. You see them once and that's it. [...] There must be GP surgeries in the city centre where many go to because one can go shopping there, too or it's close to their work. "Ah, there's a doctor, I'll just go for a quick visit."...well, for the young ones which are not chronically ill. And I think that doesn't happen outside the cities.' (Paragraph 363, urban GPs group B)

Our patients also know us very well

Many GPs from non-urban areas mentioned that not only do they know their patients very well; they are also privately known by their patients. This is considered to have a positive and beneficial influence on the physician–patient relationship. Most GPs do not mind encountering patients outside their consultation hours. Nonetheless, this lack of anonymity does demand stronger demarcation of the GP's professional and private role. Urban GPs mentioned this theme only in relation to non-urban areas, but not as a part of their own daily life.

'[...] In the country your integration into the community is much stronger and everyone watches you, what you do, what your children do, what your wife does, where you drive to, when you go where. [...] While we, in the city, can hide in its anonymity, one is in a much different focus in the country including all one's private activities.' (Paragraph 316, urban GPs group B)

City versus country doctor

Intrusiveness of patients—expecting permanent accessibility

Patients intruding into GPs' private lives [for example asking them for medical advice in the supermarket] are perceived negatively under certain circumstances. Non-urban GPs stressed that this kind of invasiveness does not occur as often as some people assume it to happen. If patients approach GPs after consultation hours this is generally really necessary and not due to bagatelles. Either way one has to establish some kind of boundary between private and public life especially as a rural GP.

'[...] a maximum of four or five times that someone came and said he needed help during the night or on a weekend when I wasn't on duty. But he seriously needs help then. [...]' (Paragraph 309, rural GPs group C)

'[...] There are patients arriving at your living room in the evening because they needed to finish their work on the fields first. Sometimes they show up with less restraint and you have, well one is more anchored within this society. [...]' (Paragraph 316, urban GPs group B)

Positive aspects of being a country doctor

The positive aspects of being a GP in a rural region were strongly supported by non-urban GPs: ‘[...] *It’s a great life [...]*’ (paragraph 399, rural GPs group B). Reasons for the attractiveness of being a rural GP were an attractive income, the nice environment, the patients’ trust in their GPs, the broad range of responsibilities, the higher impact of one’s own work and the challenges going along with that. Urban GPs often assumed that the close contact with the patient could put strain on the GP, which was not supported by non-urban GPs.

‘Yes, I believe, too that the doctor’s authority is a different one in the countryside as...and connected to that, that nobody would go and consult another doctor for a second opinion, nobody would come to this conclusion. They do what the doctor says. Well, I’m just saying.’ (Paragraph 939, urban GPs group B)

Provider of medical services versus medical companion

Non-urban GPs described the difference between being a rural ‘doctor’ and an urban ‘physician’. Urban GPs were more often seen as physicians, meaning they are providers of medical services, a ‘*slave to the patients*’ (paragraph 260, environs GPs group A) and suppliers of patients for specialists (‘[...] *during the time, when I was in (city district), where I was more a kind of supplier for specialists in the surrounding areas [...]*’; Paragraph 359, environs GPs group B), than family physicians and trusted medical companions. The [rural] GP maintains a close relationship to his patients and rises to the challenges which result in his surroundings. The letter of referral [to a specialist] is perceived as an important part of the therapy for urban patients, while non-urban GPs deal with many conditions on their own, which is generally regarded as advantageous and positive.

‘[...] for half a year I had a practice on (street in city A). [...] there I was, in my opinion, a medical service provider. Yes, sometimes it was very interesting, but somehow... there I was a “physician.” Now I’m a doctor. And that I can only describe as... well I... I have some patients who give me the feeling that I am their family doctor, their trusted doctor, which makes one... it’s very fulfilling and at the same time a great challenge because the sentence often comes up: “See here, I’m in pain, but I’ll tell you now- you’re not allowed to refer me to anyone else.” That is my problem, yes, but it’s fantastic... [...]’ (Paragraph 344, environs GPs group B)

Discussion

Main findings

We found differences in perceptions of being a rural versus urban GP from the GPs point of view. The perception as family physician defined by accompanying patients ‘from the cradle to the grave’, being responsible for treating any and every kind of medical condition and being the cover for ‘missing’ specialists was more pronounced in GPs from non-urban regions. They also emphasized their close and long-term relationship with their patients and other positive aspects of being a rural GP. GPs in rural regions and their patients know each other inside out and GPs considered this even as beneficial for the treatment relationship, while these aspects of physician–patient relationship seems to play a subordinate role for GPs in urban regions. Urban GPs perceived themselves as a provider of medical services and writer of referrals [urban GPs] versus being a medical companion rising to all occurring challenges [rural GPs].

Strengths and limitations

This is the first qualitative study to compare subjective perceptions of being a GP in urban areas and non-urban areas in Germany. To maximize the variation of focus group participants’ accounts, we ensured to include both male and female GPs, with longer and shorter durations of practice experience, lower and higher age, from smaller and larger practices and different types of practices [single practices, group practices and community practices] from all three regions. Regarding the large variety and high number of focus group participants in our study, we believe to have achieved an in-depth insight into GPs’ perceptions of being a doctor in urban versus non-urban regions. GPs who have a very positive attitude towards their medical practice or their region of practice could have been more motivated to take part in our study. This could have induced a positivity bias, but all focus groups presented a balanced mixture of positive and negative opinions concerning their own medical practice and perceptions of [structural] deficits in care. Either way, all study participants were registered and practiced in northern Germany. Therefore, it cannot be ruled out that our findings are not completely generalizable to other regions in Germany or other countries. Nonetheless, some conformities could be found between our results and those from studies in other regions e.g. the great range of duties and performed services and the feeling of being the coordinator of a patient’s treatment (21).

Collapsing the four different region types defined by the BBSR into two region types [urban versus non-urban regions] for analysis might be viewed as an oversimplification of the situation present in northern Germany. Collapsing region type one/two and three/four might initially seem to make more sense, but was unfortunately not possible due to our initial recruitment and data collection strategy. Either way we feel the collapsing of region type ii, iii and iv into one category to be justifiable as the accounts of GPs from environs and rural areas showed a very strong overlap.

Discussion of results and comparison with existing literature

We assume that GPs’ self-perceptions are influenced by the surrounding conditions under which they perform—in our study partly for decades—their daily work. In Germany, these surrounding conditions are, for example the only recently disestablished residence obligation [GKV-Versorgungsstrukturgesetz from 1 January 2012] and the shortage of specialized medical care in non-urban regions. While rural GPs have more direct contact with their patients and are well-known in their municipality, anonymity is much more prominent amongst urban GPs. Thus, it is not surprising that patients expecting 24/7-accessibility and therefore affecting the GPs’ privacy may be far more relevant for non-urban GPs than for urban GPs. This theme recurs in other studies, too (16,19), but the interviewed GPs from non-urban regions relativized this assumption in our study. One-third of all paediatricians, gynaecologists and ophthalmologists are practicing medicine in urban areas despite the fact that only one-fourth of the German population lives in urban regions. Similar numbers can be found for otorhinolaryngologists, neurologists, orthopaedists, psychotherapists and urologists (27). This echoes in the interviewed non-urban GPs’ description as cover for ‘missing’ specialists and caregiver for a great range of medical issues.

The differences in being a rural versus urban GP reported in our study are nuances of comprehensive aspects highlighted for example in the policy paper of the German College of General Practitioners and Family Physicians (28) and in an article from

Abholz (29). The policy paper highlights the importance of primary care physicians as generalists and family physicians. The coordinating role, as it is also seen in our study as part of GPs' professional roles, and the long-term and trusting relationship between GP and patient are central points of the policy paper. Our results showed that the GPs are happy to fulfil these requirements despite the challenge of playing several roles [e.g. gatekeeper or consultant]. Abholz (29) emphasizes that the strength of family medicine is, 'that the doctor is always there'. This requirement makes the GP's function interesting and would also contribute to job satisfaction (28). The GPs from our focus groups also considered this as a defining element of a GP's function. Based on our findings, these requirements of GPs seem to be more important and at the moment more pronounced in rural areas than in urban areas.

Being a rural doctor is depicted very positively by the GPs from non-urban regions in our focus groups. This opposes the negative prejudices existing in medical student populations and family practitioners in training (14) and the objectively more negative surrounding conditions of working in rural regions (9–13). Some of the positive aspects of working in rural regions found in our study, were also mentioned by GPs interviewed by Natanzon et al. (19). Those are, for example, patients' greater trust in the expertise and competency of their GP and low competition for patients among rural GPs.

Conclusions

The participating GPs seemed to be satisfied with their work and their role in their patients' lives which stands in contrast to findings from other studies (30). Being a rural GP was described very positively. As our study was performed in Northern Germany, we interviewed a smaller number of GPs. Larger studies might be needed to test and quantify the differences between being a rural and urban GP with special regard on the positive aspects of being a country doctor found in our study. Presupposing this quantitative study will reproduce our findings, the positive aspects of being a GP, especially in rural regions, need to be transported to those recipients who are in the running for becoming GPs. This could be achieved by university lectures given by experienced GPs from rural regions (8), campaigns transporting the positive view of working as a GP [in rural regions], promotion of work placements in rural general practices (31) or incentives for working as a GP especially in rural regions (32).

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