Patients´ values in Nordic general practice; a report from the QUALICOPC study.

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Abstract

Background. Patients' expectations and preferences are important for improving the quality of care. We have explored Nordic patients´ views of the importance of different aspects of quality in general practice.

Methods. In the Nordic countries, patients were recruited in general practitioners' (GPs´) waiting rooms and asked to fill in a questionnaire ranking the importance of 47 statements reflecting five domains concerning quality of care in general practice: communication, involvement, accessibility, continuity, and comprehensiveness. Questionnaire items rated as *important* or *very important* by ≥ 90% of participants in all countries were considered to be universally of high importance. Logistic regression was used to identify associations between assessments and patient characteristics.

Results. 707 patients responded, ranging from 82 (Iceland) to 209 (Denmark) per country. 90 % or more of patients in each country rated ten statements as *important* or *very important:* six pertained to communication with the GP, three to patient involvement and one to comprehensiveness of care. No items regarding accessibility or continuity of care exceeded the 90% limit in all countries. The item most frequently rated as *very important* was *"I understand what the GP explains".* Female patients were more likely than males (OR=2.9; 95%CI 1.5-5.5) to value that a GP treats them as a person rather than just a medical problem, and also that they receive instructions regarding what to do if things went wrong (1.7; 1.2-2.2). Older patients >65 years put less emphasis than those aged <35 on whether the GP takes them seriously (0.4; 0.3-0.5), and also on the importance of receiving instructions for what to do if something went wrong (0.5; 0.4-0.7). Patients with chronic disease were less concerned (0.6; 0.4-0.8), with receiving instructions, but valued strongly that a GP knows when to refer them (2.2; 1.5-3.3).

Conclusion. Patients in all countries assigned high value to the communication with their GP. Availability was also deemed important by patients, but came secondary to good communication quality. The organisational framework for general practice organisation must allow for acceptable quality of communication as well as availability.

Keywords

General Practice, QUALICOPC, Delivery of Health Care, Patient Preference, Nordic Countries

Background

Patient satisfaction and patients´ experiences are commonly used as measures of quality in primary health care (PHC) research. Aspects of care that are scored poorly by patients are often suggested as areas in need of improvement. In order to ensure patient-centred care, we need to consider which aspects of general practice that are most important for patients (1). In health services research on the quality of PHC, there has been a shift of focus over the years from *patient satisfaction* with the services to *patient experiences* when using the services (2, 3). This has given a better foundation for evaluating the quality of different aspects of the services. In health services research on PHC, descriptive data commonly report patients´ experiences regarding e.g. ease of telephone access, waiting time for appointment, consultation time, communication with the GP or continuity of care (4). In the annual Commonwealth Funds evaluation of healthcare systems, Norwegian patients reported poorer experiences with their regular GPs than respondents from other countries in areas such as communication, user participation and consultation time, but they still reported a higher general satisfaction with their GP than the European average (5). This supports that a mere comparison of isolated quality measures for PHC across countries is not sufficient to evaluate where change is warranted. In studies listing different aspects of care that are all unequivocally positive, it is to be expected that patients will indicate all items as important (6). A recent systematic review points to several limitations of patient-related experience measures and the need to validate them according to the intended field of research (7).

In studies on patients´ experiences and satisfaction with PHC, most patients have a generally positive view of the services (8, 9). In a European study involving 17 000 patients from ten different countries, aspects of general practice that were generally evaluated positively by patients were identified (4). The patients were generally very positive towards the services, e.g. the time they spent with their GP, the way the GP listened to their problems, the confidentiality of records, and the speed of services in case of emergency problems. A tendency towards less positive evaluation was found among patients in countries where the GPs serve as gate-keepers for access to secondary care, as they do in the Scandinavian countries and the Netherlands. A review article from 2003 found that patient characteristics (e.g. age, sex, economic status, family situation) were important determinants for how patients valued for instance accessibility, availability and organisation, with the most pronounced difference between younger and older patients. Younger patients placed greater importance on patient involvement and direct access to specialist healthcare, whereas older patients valued continuity of care higher (10).

In a Norwegian qualitative study from 2000, the patients indicated that the communication with the GP was more important than easy access and short waiting time (11), but we have otherwise little knowledge from a Nordic setting regarding how patients rank the importance of different aspects of quality in PHC. Even though there are some significant differences in the organisation of PHC between the Nordic countries, they all have tax-financed, equitable, high-quality healthcare services with general practice in a central role (12, 13). It is therefore likely that Nordic patients have somewhat similar expectations to their GPs. When patients are asked how they value different aspects of health care provision, it is possible that all positive qualities are indicated as desirable, without considering that perfection in health service provision may not be possible. We need a broader picture that includes how patients value and rank the importance of different aspects of the services provided.

In the current study we aim to explore Nordic patients´ evaluation of the importance of different aspects of general practice, and to analyse possible associations between patients' preferences and patients' characteristics.

Material and method

Questionnaires. Our data originate from the study Quality and Costs of Primary Care in Europe (QUALICOPC) which aimed to evaluate the performance of primary care systems in Europe in terms of quality, equity and costs (14). The QUALICOPC Partner Consortium, led by the Netherlands Institute for Health Services Research (NIVEL), developed the questionnaires. One patient per participating GP answered a Patient Values Questionnaire (PVQ), which was designed to explore which aspects of general practice and the meeting with the GP the patients in general rated as most important, independently of their current reason for seeing their GP. The questions were derived from existing questionnaires, validated in three consensus rounds, followed by a pilot study, before the final revision. Translation of the questionnaire was done using a "forth and back" translation procedure. The QUALICOPC study and the development of the questionnaires are described in further details elsewhere (15) (16).

Questionnaire items. The patients assessed 47 different items reflecting various aspects of the contact with their GP in terms of importance (not important, somewhat important, important, very important) (Table 2). Fifteen of the items pertained to communication, sixteen patient involvement, seven accessibility, six continuity of care and three pertained to comprehensiveness of the services. The sorting of items into these five domains was done according to the validation procedure of the QUALICOPC questionnaires (15).

Sample. Patients were approached in the waiting rooms of GPs participating in the QUALICOPC study. In Sweden and Denmark, random national samples of GPs were invited to participate. In Iceland, all GPs were invited. Finland employed a mixed procedure of random sampling and selected GPs. Norway used convenience sampling within formal and informal GP networks. A field worker approached patients ≥18 years in the GP´s waiting room before a consultation to request participation. Ten patients per GP were included in the QUALICOPC study, of which one was randomly assigned to answer the PVQ. All questionnaires were answered anonymously. Data collection took place from 2011 to 2013.

Statistical analyses. In order to identify qualities that were universally considered to be of high importance, we identified the questionnaire items where 90% or more of patients in each county answered that they rated the indicated quality as *important* or *very important.* We used multiple logistic regression in order to identify associations with patients´ gender, age, health and level of education. Fisher´s exact test revealed that for six of the ten items there were significant differences between patients' responses in the Nordic countries. We therefore progressed with a General Estimating Equations (GEE) model, in order to correct for the clustered nature of the material. We did a Bonferroni correction to adjust for multiple analyses, defining significant p-values as $p<0.05/10= 0.005$. Since Bonferroni is a conservative correction, results with $p<0.05$ are also highlighted. Results are given as percentages, or as odds ratios (OR) with 95% confidence intervals (CI). In order to visualize differences between patients' rating in different countries, we also identified the top ten items per country that received the highest percentage of the answer *very important*. All analyses were done by SPSS Statistics 26.

Results

The material for the study comprised questionnaires from 707 patients; 209 Danish, 175 Norwegian, 129 Finnish, 112 Swedish, and 82 Icelandic. Table 1 shows demographic data of the study patients. Patients' mean age varied from 49.0 years of age (Norway) to 58.3 (Finland). There were fewer female participants from Iceland than from the other countries (52% versus 61-63%). More patients in Finland than in the other countries reported that they did not have a very good health, relatively more had a chronic disease and their average level of education was also lower than that reported from the other countries.

(Insert table 1 here)

Table 2 shows the percentages of patients from each country that rated each item as *important* or *very important*. For ten of the 47 questionnaire items, 90% or more of the patients in each of the countries answered *important* or *very important* (shown in bold print in Table 2). Six of these ten items pertained to the communication with the GP, three items pertained to patient involvement and one to comprehensiveness. No items regarding accessibility or continuity of care reached the 90% limit in all countries. However, for the item *I can get an appointment easily,* 99% of Norwegian patients answered *Important* or *Very important*, and in Sweden, Iceland and Finland more than 90% answered similarly. However, only 79% of the Danish patients answered that this was important or very important, and therefore this item did not reach our predefined limit for further analyses.

(Insert table 2 here)

Table 3 shows the top ten items per country for the answer *very important.* The item most frequently rated as *very important* was *"I understand what the GP explains"*. This item came highest for three countries (Sweden 78%, Finland 68% and Iceland 75%) and second highest for Norway (71%) and Denmark (68%). In Norway, the item *The GP takes me seriously* was most valued (73%), and in Denmark the item *I keep to my appointment* (with my GP*)* received the highest percentage of *very important* (71%).

(Insert table 3 here)

The items that were rated as important or very important by 90% or more in all the five countries were further analysed with GEE multiple regression analyses (Table 4). For five of these ten items, there were no associations with the patients´ gender, age, health status or level of education. Female patients were more likely than males to highly value that the GP treated them as a person and not only as a medical problem (OR 2.9; 95% CI 1.5-5.5), that they kept to their appointments with their doctor (OR 2.9; 1.8-4.7) and that they received instructions regarding what to do if things should go wrong (OR 1.7; 1.2-2.2). Older patients >65 years put less emphasis than the youngest patients <35 years on whether the GP took them seriously (OR 0.4; 0.3.0.5), and whether they received instructions on what to do if things went wrong (OR 0.5; 0.4-0.7). Patients who rated their own health as good put less value in keeping to their own appointment (OR 0.4; 0.2-0.7), and patients with a chronic disease were less concerned with receiving instructions (OR 0.6; 0.4-0.8), but they valued highly that the GP knew when to refer them to secondary care (OR 2.2; 1.5-3.3).

(Insert table 4 here)

Six items did not reach the 90% limit in each country, but the mean when all countries were analysed together was still above 90% (Table 2). Two of these items were found in the accessibility domain, whereas there was one each in the domains communication, involvement and continuity.

Discussion

With the intention to determine aspects of care that should have priority for further quality improvements in PHC, we have identified preferences that are universal for patients in all Nordic countries. Features related to the communication with the GP and to patient involvement where ranked as most important by the study patients. None of the items regarding accessibility were deemed as important/very important by more than 90% in each country. For all the countries, the item "*I understand what the GP explains*" was among the top three answers in the "very important"-category. No items from the accessibility domain reached this top three list.

In our study, the clear majority of items reaching the 90% limit in all countries were in the communication-domain (six of 15 items in this domain reached the limit). This corresponds with a study of Swiss QUALICOPC data, where the authors concluded that items related to communication/patient-centeredness and coordination/continuity of care were rated as more important than items related to access (17). In the Europep study from 1999 performed in eight countries including Norway, Sweden and Denmark, only two items regarding accessibility reached the top-ten list regarding importance (*quick access in case of emergencies* (ranked second) and *it should be possible to make an appointment at short notice* (ranked sixth)) (6). The number one priority by the patients was that the GP should have enough time to listen, talk and explain, which is in line with our findings that patients place very high value on the quality of communication with their GP.

None of the items in the continuity domain reached the 90% limit for all countries in our study, in spite of evidence that continuity of care is associated with better patient satisfaction, better adherence to medical advice and also lower mortality (18, 19). It is possible that although continuity is increasingly recognised by GPs as an important feature of PHC, its´ importance may be less obvious for the patients in a time with electronic patient journals and easy accessible medical information online.

Six items did not reach the 90% limit in each country, although when all countries were analysed together the mean was still above 90%. Two of these were in the accessibility-domain; *GP does not give me feeling of time pressure* and *I can get an appointment easily.* Only 88% of the Finnish patients

found it important not to be given a feeling of time pressure. This may be related to the fact that Finnish GPs estimate an average of 24 minutes per patient consultation (13), hence the patients may be used to sufficient duration of consultations. On the other hand, Swedish GPs estimate the same mean duration of consultations as the Finnish, whereas 96% of Swedish patients rate the lack of time pressure as very important. A more plausible interpretation may therefore be cultural differences in expectations when in contact with the health services. In a recent study on patient enablement, cultural factors that pertained to the national culture, rather than inter-country differences in health care systems, where found to be associated with patient enablement after a GP consultation (20). It is possible that such national cultural differences also affect other aspects of healthcare.

For the item *The GP involves me in decision making* (involvement domain), 95% of Norwegian and Swedish patients rated this as important or very important, whereas 88% in the other three countries gave a similar response. It is surprising that Denmark should be more similar to Finland than to Norway, as Norwegian and Danish PHC have very similar organisation, but may again be related to cultural differences.

For five of the ten items for which 90% or more of the respondents in each country answered *important* or *very important*, there were no differences associated with the patients´ gender, age, health status or level of education. People with a chronic disease or poor health are expected to be frequent users of health services, and it is thus reasonable to pay attention to which aspects of the services they deem as especially important. Somewhat surprisingly, people with self-evaluated poor health put less value into their own involvement in terms of keeping to their GP appointment. People with chronic diseases were less concerned with receiving instructions on what to do if things went wrong – maybe because they already know how to handle their chronic disease? They did, however, value higher than others that the GP knows when to refer - it could be that they have experiences to the contrary.

A qualitative study from the UK exploring the importance of personal continuity and rapid access concluded that patients´ preferences vary according to the reason for seeking healthcare, and that patients´ main preference is to receive *appropriate* services (21). In another British study from 2018, the overall experience when in contact with PHC was only moderately associated with opening hours and the ease of making GP appointments. The factor most strongly associated with a positive patient experience was the GP´s interpersonal quality of care (22). In the UK, there has been a strong focus on shortening the waiting time for getting a consultation, and this has come at the expense of the continuity of care with less possibility to see the same GP every time (21). Patients give high priority to access in situations they perceive as urgent, but in other situations they are willing to wait longer

in order to see a doctor they know (21). This means that the discussion regarding accessibility with regards to primary care services should be differentiated according to the clinical situation. In our study, over 90% of the patients in all countries except Denmark, gave high importance to the item "I can get an appointment easily". It seems clear that patients do want easy access to appointments, but it is equally important that the doctor they meet has time and focus to listen and explain properly, and show empathy for and acceptance of their patients. In a cross-sectional study, British researchers identified areas for improvement in general practice (23). They commented that while better access to out-of-hours care would likely improve patient satisfaction, it was not likely that a shorter waiting time when contacting regular general practice would improve patient satisfaction. They also pointed to patient empowerment as an area where improvement will most likely enhance patient satisfaction.

Patients who see a GP with strong empathic abilities have better clinical outcomes in fields as diverse as anxiety, diabetes and the common cold, and patients of empathic doctors experience better enablement (24). Patients who see empathic doctors also report higher satisfaction with the services they receive. With increasing focus on the productivity of care, this is important to bear in mind, and it corresponds with our finding that the items relating to doctor-patient communication are highly valued by patients. Patient centered care entails care that is compassionate, empathetic, and responsive to needs, values, and preferences of each individual patient, which increases patients' satisfaction and is also associated with better adherence to medication and better self-management of chronic diseases (25, 26). To provide patient centered care, we need to know what patients prefer, not what doctors or politicians assume that they prefer. In our study, none of the items pertaining to accessibility where deemed as important/very important by more than 90% in each country. When we looked at the top ten answers for each country in the "very important"- category, the only items from the accessibility-domain were *The GP does not give me a feeling of time pressure* (ranked No 5 in Sweden, No 7 in Iceland and No 9 in Norway), and *I can get an appointment easily* (No 10 in Iceland). The item "The GP takes me seriously" was among top four in all the countries. A focus limited to accessibility may therefore not be in accordance with patient preferences if it comes at the expense of a framework that allows for good communication and a good relationship with the GP. The accessibility of primary care is easier to measure than the quality of communication, patient centeredness or continuity of care, and may therefore receive more attention than what is warranted with patient preferences in mind. The framework of general practice must allow for all aspects of care, and it is important that efforts to improve one aspect does not cause repression of the others.

Strength and weaknesses. The QUALICOPC study was based on validated questionnaires, and provided a good opportunity to obtain comparable data from different countries (15). In all the Nordic countries except Sweden, the patients were recruited from the whole country and from both urban and rural areas. We consider the study participants to be representative for people who are users of general practice, but since we recruited the patients in the GPs´ waiting rooms, we cannot draw conclusions about preferences among persons who do not visit their GP. However, a large majority (in Norway 70%) of the population visit their GP each year, hence a GP waiting room population may be seen as representative of the general population. A qualitative methodology could give more in depth information on how patients value the different dimensions of their contact with primary care.

Conclusions/implications

Nordic patients value highly good communication with their GPs and also involvement in decision making. The framework of general practice should support and endorse the qualities of care that are valued by patients, in line with the ideal of patient centered care. A singular focus on the access of care when developing primary care services is not advisable. Policy makers may have to accept that for all aspects of services, "good enough" rather than perfect will sometimes have to do, as perfection of one aspect of the services may result in a poorer quality of other dimensions.

List of abbreviations

GP General Practitioner

PHC Primary Health Care

OR Odds Ratio

CI Confidence Interval

GEE Generalized Estimating Equations

QUALICOPC Quality and Costs of Primary Care in Europe

Declarations

Ethics approval and consent to participate
The QUALICOPC study was presented to the relevant ethic committees in the Nordic countries. The study was approved by the Danish Data Agency, the Ethical Committee of the Pirkanmaa Hospital

District in Finland, the Regional Ethical Review Board of Linköping in Sweden (Dnr 2011/481-31; Dnr 2013/120-32) and the Icelandic National Bioethics Committee. The Regional Committee for Medical and Health Research Ethics in South-Eastern Norway concluded that their approval was not required for this study.

Consent for publication

Not applicable

Availability of data and materials

The raw data used in this study is the property of the international QUALICOPC consortium, and is not available for publication by the authors. The data is available upon reasonable request.

Authors' contributions

TBE planned and performed the statistical analyses and drafted the manuscript and tables. All authors contributed in the writing process and revision of the manuscript. All authors read and approved the final manuscript.

Table 1 Demographic data of patients participating in the study.

	Total N (%)	Norway	Denmark	Sweden	Finland	Iceland
Total N (%)	707 (100)	175 (24.8)	209 (29.6)	112 (15.8)	129 (18.2)	82 (11.6)
Age mean (range)[a]	53 (18-96)	49 (18-92)	52.8 (18-87)	55.6 (20-91)	57.3 (18-96)	52.2 (18-87)
Female	430 (61.2)	110 (63.2)	129 (61.7)	70 (63.1)	79 (61.2)	42 (52.5)
Own health[b]						
Very good	114 (16.4)	33 (19.1)	49 (23.8)	17 (15.5)	4 (3.2)	11 (13.6)
Good	333 (47.9)	84 (48.6)	91 (44.2)	54 (49.1)	56 (44.8)	48 (59.3)
Fair	205 (29.5)	45 (26.0)	56 (27.2)	31 (28.2)	56 (44.8)	17 (21.0)
Poor	43 (6.2)	11 (6.4)	10 (4.9)	8 (7.3)	9 (7.2)	5 (6.2)
Chronic disease[c]	351 (49.6)	83 (48.3)	98 (46.9)	56 (50.5)	79 (63.2)	35 (43.8)
Level of education[d]						
Primary education	192(27.2)	20 (11.4)	51 (24.4)	27 (24.1)	71 (55)	23 (28.0)
Secondary education	226 (32)	79 (45.1)	26 (12.4)	44 (39.3)	42 (32.6)	35 (42.7)
Higher education	270 (38.2)	73 (41.7)	124 (59.3)	39 (34.8)	16 (12.4)	18 (22.0)

Missing: a) 4 b) 12 c) 10 d) 19

Table 2 Percentage of patients that answered *Important* or *Very important* to each questionnaire item (domains as defined by QUALICOPC consortium).

Domain	Total (N=707)	Norway (N=175)	Denmark (N=209)	Sweden (N=112)	Finland (N=129)	Iceland (N=82)
Communication						
Reception desk is polite and helpful	88.7	93.6	82.5	93.8	86.8	90.1
GP avoids disturbance by calls etc.	67.9	69.4	65.2	86.4	50.4	74.4
GP is polite	89.8	94.2	85.1	96.4	85.3	89.7
Asks questions about my health problem	**95.1**	**98.8**	**92.3**	**98.2**	**94.5**	**91.3**
I understand what the GP explains	**97.3**	**98.8**	**95.2**	**99.1**	**98.4**	**95.0**
GP makes eye contact	84.5	88.4	88.9	88.3	82.7	62
GP listens attentively	**96.3**	**98.2**	**95.2**	**99.1**	**93.8**	**95.0**
GP is not prejudiced; age, gender, religion, culture	85.1	88.9	81.2	89.1	77.5	93.8
GP treats me as a person, not just medical problem	**94.7**	**95.9**	**93.9**	**96.4**	**90.7**	**98.8**
GP is respectful	87.5	87.7	85.8	90.0	85.3	91.3
GP takes me seriously	**97**	**99.4**	**94.7**	**99.1**	**95.3**	**97.5**
GP understands me	**95.7**	**97.7**	**92.8**	**99.1**	**93.7**	**97.5**
GP asks if I have questions	84.1	88.7	75.5	92.7	82.4	87.5
GP asks if I have understood everything	83.9	85.9	79.9	91.6	86.3	86.3
I am honest and do not feel embarrassed	92.8	95.4	89.8	95.4	93.0	91.0
Involvement						
GP involves me in decision making	91	95.4	87.9	96.4	87.6	87.5
I feel better able to cope after GP visit	93.1	94.8	91.8	96.4	94.5	86.3
I have prepared by symptom diary or prepared questions	69.4	62.6	71.7	90.2	60.9	63
GP asks if I have questions	84.1	88.7	75.5	92.7	82.4	87.5
I can bring family/friend to the consultation	55.2	48.8	58.7	71.4	44.9	53.1
I keep to my appointment (with my doctor)	**96.4**	**98.8**	**96.6**	**99.1**	**93.0**	**90.9**
GP asks how I prefer to be treated	77.5	83.8	65.4	74.2	78.7	97.4
GP gives me additional info about health problem	58.3	62.6	54.4	67.0	55.8	51.2
GP informs me about reliable sources of info	46.4	47.1	42.2	56.5	33.9	62.0
I tell the GP what I want to discuss in consultation	79.5	77.3	73.2	87.2	78.1	92.5
						Cont.

Domain	Total (N=707)	Norway (N=175)	Denmark (N=209)	Sweden (N=112)	Finland (N=129)	Iceland (N=82)
Involvement (cont.)						
I am prepared to ask questions and take notes	57.7	57.6	49.3	78.0	52.8	60.0
I am open about use of other treatments	78.6	83.7	78.5	74.1	78.1	74.0
GP gives me all test results	82.2	90.1	77.4	89.9	65.9	93.7
Offers telephone or mail contact if further questions	78.0	91.2	65.2	86.2	70.3	83.5
Clear instructions what to do if things go wrong	**94.4**	**98.3**	**90.9**	**98.2**	**92.2**	**93.6**
I adhere to agreed treatment	**96.5**	**98.3**	**96.6**	**96.3**	**95.3**	**94.9**
I inform the GP how treatment works out	81.6	90.0	77.1	86.8	69.6	87.3
Accessibility						
GP does not give me feeling of time pressure	93.6	98.8	90.8	96.4	88.3	93.8
Practice has extensive opening hours	60.2	56.2	37.7	93.8	57.8	82.7
I can get appointment easily	90.1	93.1	79.1	98.2	94.6	93.7
I know how to get night/weekend services	80.7	66.7	80.2	89.1	87.6	89.9
Practice is close to where I live or work	69.4	69.6	57.8	81.8	75.2	72.2
I can see other doctor if I think it is necessary	68.8	71.8	62.1	86.5	50.0	85.3
Short waiting time on the phone	78.3	82.4	62.3	93.7	81.4	85
Continuity						
Medical records at hand	83.3	89.9	68.5	83.3	92.2	80.2
GP knows about my medical background	91.9	93.0	92.3	94.6	87.5	91.4
GP knows about my living condition	68.2	67.8	69.9	64.9	66.7	71.6
I don't have to tell reception about my problems	62.0	74.6	56.3	61.6	51.6	67.1
I know which GP I will see	81.4	89.6	77.3	75.9	80.5	83.5
GP is aware of my personal background	57.1	60.7	58.5	59.5	37.5	73.8
Comprehensiveness						
GP knows when to refer	**96.7**	**97.1**	**95.6**	**97.2**	**96.1**	**98.7**
GP asks about possible other problems	69	73.4	54.1	79.5	73.4	75.9
Psychosocial problems can be discussed	83.1	88.9	85.8	90.6	64.8	83.3

Bold: ≥ 90 % in all five countries answered *important* or *very important*

Table 3 Top ten questionnaire items that patients rated as "very important" per country. Percentages in brackets.

	Norway (%)	Denmark (%)	Sweden (%)	Finland (%)	Iceland (%)
1	GP takes me seriously (73.1)	I keep to my appointment (71.1)	I understand what the GP explains (77.5)	I understand what the GP explains (67.7)	I understand what the GP explains (75.0)
2	I understand what the GP explains (70.9)	I understand what the GP explains (67.6)	GP knows when to refer (72.9)	GP knows when to refer (64.8)	GP takes me seriously (70.0)
3	GP knows when to refer (67.1)	GP knows when to refer (64.6)	GP takes me seriously (70.0)	Medical records at hand (55.0)	GP under-stands me (69.6)
4	GP involves me in decision making (64.2)	GP takes me seriously (63.3)	GP understands me (62.6)	GP takes me seriously (54.3)	GP knows when to refer (69.6)
5	Clear instructions if things go wrong (60.9)	GP treats me as a person, not just medical problem (61.7)	GP listens attentively (62.2)	I feel better able to cope after visit (52.3)	GP treats me as a person, not just medical problem (67.5)
6	GP understands me (60.2)	I adhere to agreed treatment (61.2)	GP does not give feeling of time pressure (60.7)	GP understands me (52.0)	GP knows my medical background (63.0)
7	I keep to my appointment (59.9)	GP knows my medical background (60.8)	GP asks questions about health problem (60.4)	GP knows my medical background (51.6)	GP does not give feeling of time pressure (62.5)
8	I adhere to agreed treatment (58.1)	GP understands me (57.5)	I keep to my appointment (60.4)	I keep to my appointment (51.3)	GP is not prejudiced (62.5)
9	GP does not give feeling of time pressure (57.6)	I feel better able to cope after visit (57.0)	I adhere to agreed treatment (58.7)	I adhere to agreed treatment (50.0)	GP asks how I prefer to be treated (60.3)
10	GP treats me as a person, not just medical problem (57.3)	GP listens attentively (56.3)	GP is polite (57.7)	Clear instructions if things go wrong (48.4)	I can get appointment easily (59.5)

Table 4 Associations between patient characteristics and quality of care related items rated as important/very important by ≥90% of patients in all Nordic countries. General Estimating Equations logistic regression analyses. Associations shown as odds ratios (ORs) with 95% confidence intervals (CI). Significant results indicated in **bold print**.

	GP asks questions OR (95% CI)	Understand GP´s explanation OR (95% CI)	GP listens attentively OR (95% CI)	GP takes me seriously OR (95% CI)	GP understands me OR (95% CI)	GP treats me as a person OR (95% CI)	I keep to my appointment OR (95% CI)	Instructions what to do if things go wrong OR (95% CI)	I adhere to the treatment OR (95% CI)	GP knows when to refer OR (95% CI)
Gender (ref male)	1.6 (1.0-2.7)[a]	2.9 (1.1-7.6)[a]	2.4 (1.4-4.1)	2.3 (0.7-7.8)	1.3 (0.7-2.3)	**2.9 (1.5-5.5)[b]**	**2.9 (1.8-4.7)[b]**	**1.7 (1.2-2.2)[b]**	1.2 (0.7-1-9)	0.4 (0.5-4.9)
Age (ref <35)										
35-65	0.8 (0.2-3.1)	0.8 (0.1-4.4)	0.2 (0.0-0.9)[a]	0.5 (0.2-1.2)	2.0 (0.5-3.2)	**1.9 (1.2-3.0)[b]**	1.8 (0.6-5.3)	0.7 (0.4-1.2)	1.4 (0.3-6.7)	1.6 (0.6-3.9)
>65	0.8 (0.3-1.9)	0.7 (0.1-4.6)	0.2 (0.0-0.9)[a]	**0.4 (0.3-0.5)[b]**	1.2 (0.5-3.2)	1.8 (1.0-3.1)	2.2 (0.6-8.0)	**0.5 (0.4-0.7)[b]**	1.4 (0.3-6.5)	0.5 (0.2-1.7)
Own health (ref good)										
Poor	0.4 (0.2-0.8)	0.6 (0.3-1.1)	0.4 (0.1-0.9)[a]	0.6 (0.2-1.8)	1.2 (0.5-3.1)	1.1 (0.5-2.5)	**0.4 (0.2-0.7)[b]**	0.9 (0.4-2.1)	0.9 (0.3-3.0)	0.8 (0.5-1.4)
Chronic disease (ref no)	1.7 (0.8-3.5)	1.3 (0.5-1.3)	1.5 (0.6-3.7)	1.9 (0.7-4.9)	0.6 (0.2-1.7)	0.8 (0.3-2.0)	1.6 (1.1-2.6)[a]	**0.6 (0.4-0.8)[b]**	1.4 (0.9-2.1)	**2.2 (1.5-3.3)[b]**
Level of education (ref primary school)										
High-school/college	1.4 (0.6-3.3)	0.5 (0.1-1.7)	0.7 (0.2-1.9)	1.2 (0.6-2.7)	1.5 (0.9-2.3)	1.0 (0.4-2.6)	1.1 (0.8-1.5)	1.6 (0.9-2.9)	0.6 (0.2-1.7)	1.0 (0.7-1.5)
Higher education	1.4 (0.9-2.2)	**0.4 (0.3-0.4)[b]**	0.6 (0.4-0.9)[a]	1.1 (0.8-1.6)	0.9 (0.4-1.8)	1.0 (0.6-1.5)	1.2 (0.8-2.0)	1.2 (0.8-1.8)	0.8 (0.6-1.2)	1.3 (0.6-2.6)

a) p<0.05; b) p<0.005 (Bonferroni correction)

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