

Research paper

Impact of a priority-setting consultation on doctor–patient agreement after a geriatric assessment: cluster randomised controlled trial in German general practices

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ABSTRACT

Background General Practitioners (GPs) often have to simultaneously tackle multiple health problems of older patients. A patient-centred process that engages the patient in setting health priorities for treatment is needed. We investigated whether a structured priority-setting consultation reconciles the often-differing doctor–patient views on the importance of problems.

Design Cluster randomised controlled trial with 40 GPs and their 317 consecutively recruited older patients.

Procedure Following a geriatric assessment, patients and doctors independently rated the importance of each uncovered problem. GPs then selected priorities with their patients in a consultation. Trained intervention GPs held a structured consultation and

utilised the list of uncovered patient problems with their importance ratings to agree priorities. Untrained control GPs only used the patient's problem list without importance ratings.

Main outcome Doctor–patient agreement on independent importance ratings two weeks after the priority-setting consultation.

Analysis Weighted kappa (κ_w) and multilevel logistic regression model.

Results Intervention GPs and their patients determined mutual priorities for 20% of individual problems. In this process, GPs often succeeded in convincing their patients of the importance of vaccinations, lifestyle and cognitive issues. Likewise, patients convinced their GPs to prioritise their social and functional problems. Further treatment

plans ensued in 84% of these priority areas. The regression model adjusting for clusters and baseline characteristics did not demonstrate significant differences in doctor–patient agreement on problems between groups a two weeks later.

Conclusion Differing views on the importance of health problems between GPs and older patients were not sustainably reconciled. The special con-

sultation facilitated identification of priority problems for treatment despite differences in perceived importance of problems between patients and GPs. German clinical trials register drks 00000792.

Keywords: family practice, health priorities, multimorbidity, older people, patient-centred care

How this fits in with quality in primary care

What do we know?

Conventional general practice consultations do not lend themselves to general practitioners (GPs) discussing multiple health problems with older patients. GPs often deal with single patient agendas consecutively, losing sight of overall health and well-being. Medical rather than health-related everyday life issues prevail in the treatment although the latter are important to older patients.

What does this paper add?

A new consultation approach was tested in which, on the basis of geriatric assessment results, patients and doctors exchanged their views on the importance of identified health problems to set priorities.

This new approach achieves a discussion on health problems from patients' and doctors' perspectives and allows problems – previously only important to one party – to become a priority. Unmet needs are identified in that nearly all jointly determined priority problems induce concrete treatment planning. The new approach did not achieve a sustained improvement in doctor–patient agreement on the importance of patients' health problems.

Introduction

In older patients with multimorbidity, many health problems need to be treated at the same time. In these instances, priority setting becomes necessary.¹

There is no tried and tested method on how to set priorities in agreement with older patients. Instead, priorities are traditionally determined in two ways. Either the patient sets priorities by deciding on the agenda of the consultation or the general practitioner (GP) weighs up what best to treat in the presence of multiple health problems.

These two practices both have disadvantages. If, on the one hand, GPs react solely to patients' agendas at each contact, they may be tempted to add treatments and lose sight of previous problems and medications.² If, on the other hand, GPs weigh up the efficiencies and dangers of treatments, especially in the case of polypharmacy, they run the risk of neglecting what is most important to the patient.³ Compatibility of medications tends to take precedence over patients' health preferences.

Recent changes in primary healthcare have not been able to solve the problem of how to treat patients with multimorbidity in a comprehensive and person-centred manner. Evidence-based guidelines and dis-

ease management programmes have become common practice. They focus on single diseases and are therefore unable to offer solutions for the complexity of health.^{4,5} Another recent development in European primary care is the emergence of geriatric assessment programmes, which provide a comprehensive health overview,⁶ but give no guidance on how to translate this complex health information into a holistic care plan.

Because of the lack of care strategies for people with multimorbidity,⁷ organisations, like the World Health Organization (WHO) and the European General Practice Network, encourage research into person-centred and holistic care,^{8,9} and this entails priority setting.¹⁰

As a general rule, priorities are determined by decision-makers, who take competing interests into account.¹¹ In the consultation, the decision-makers are the doctor and the patient. Doctors need to ensure that the preferences of patients are considered and that decisions on priorities are agreed upon. Although not easily achievable,¹² this is recognised as an ethical necessity and a standard for the quality of care that patients experience.¹³

We therefore developed a supplementary consultation in which, on the basis of a health overview (accomplished by a geriatric assessment), the patient and their GP determine the priority of problems for a

holistic healthcare plan. This consultation had two features: person-centred communication and the setting of mutual health priorities to bring about reflection or change in care plans. We tested this priority-setting consultation in a cluster randomised trial with the following objectives:

- to describe what was achieved in the intervention consultations in terms of priority setting and treatment planning,
- to determine the impact that a priority-setting consultation had on doctor–patient agreement of the importance of patient problems.

Methods

Design

The study was a cluster randomised, general practice-based pragmatic clinical trial of a complex intervention. Randomisation was carried out in a two-level cluster design, in which the patients were nested within the GP surgeries. The Ethics Committee of the Hannover Medical School approved the study (No 5096, 2008).

Preparatory work

In a phased approach,¹⁴ we identified, developed and refined the active components of this healthcare intervention. Table 1 gives an outline of the theoretical phase and preparatory studies. The concept of the intervention is an exchange of the patient's and GP's views on the importance of health problems (from an assessment) in order to jointly decide on the priority of problems for further attention or treatment. The main area of development lay in gaining a better understanding of what 'importance' means to doctors and patients when they consider health problems, and also its applicability as an outcome.

Participants

We contacted all GPs ($N = 277$) from selected postal districts in and around Hannover in four recruitment waves. In each practice, only one GP was to participate to avoid further clustering. Non-respondents were followed up by telephone. Positive responders received information material and a practice visit to explain the study aims and procedures. Participating doctors were allocated 1:1 into the intervention and control group using random block sizes of four.

Staff in each practice approached up to 12 consecutive patients aged 70 years and over registering at

the reception desk in a predetermined recruitment week. Exclusion criteria were: a high level of physical dependence that ruled out independent living (care status \geq II), limited mental capability, insufficient language skills, current participation in another trial, or non-availability by telephone.

Doctors and patients were informed about the procedures for their own trial arm only.

Procedures

All study patients received an assessment as an overview of their health problems. Patients and GPs independently rated every problem according to its perceived importance. The patient problems became the subject of the subsequent priority-setting consultations: trained intervention doctors obtained patients' problem lists with importance ratings and followed a priority-setting protocol, whereas control doctors received the problem list without importance ratings. All doctors and patients once again rated the importance of each problem a fortnight later.

Detailed description

Our study nurses undertook a computer-aided assessment (STEP) with the patients in the practice during the week following recruitment. STEP was developed in a European Concerted Action to gain a comprehensive view of older patients' health issues. It consisted of 38 questions and eight basic examinations/laboratory results (e.g. fasting glucose, clock-drawing test). The 46 items were grouped into ten health domains: functional status, social environment, physical symptoms, laboratory findings, mood, lifestyle, vaccination, problematic medication use, cognitive function and additional self-named problems not covered by the assessment (e.g. any type of cancer).¹⁵

Baseline ratings (t0)

Directly after the assessment, patients received a list of uncovered health problems. They then rated the importance of each problem, which was in turn fed into the computer. The GPs independently received the patient's problem list and rated the importance of each problem.

Immediately after these baseline ratings, the intervention or control consultation commenced.

Final ratings (t1)

Two weeks later, patients returned to the practice. Patients and GPs once more separately rated the importance of problems on the list, blinded to the previous baseline ratings. The follow-up period of 14 days was chosen to verify a sustained effect on agreement between patients and doctors, if there was any.

Table 1 Step-wise approach to developing the PrefCheck intervention

	Purpose/proceedings	Source
<i>Theoretical phase: Possible components of the intervention</i>		
1 STEP-Assessment	1 Health overview	1 STEP development ³⁷
2 Doctor and patient rate importance of patient's problems uncovered by STEP	2 Set the ground for decisions on priority problems	2 Cross-sectional study with 45 GPs and 894 patients ³⁸
3 Consultation in which the importance of these health problems is discussed; emphasis on person-centred communication	3 Exchange of importance of individual health problems, strengthen patient perspective, enhance doctor-patient agreement	3 Literature review
4 Shared decision-making to determine priority problems	4 Strengthen patients' decision-making and adherence	4 Literature review
<i>Phase I: Understanding and modelling the components of the intervention</i>		
1 STEP-Assessment	1 For reasons of comparability STEP will also be offered to the control group	1 Team decision with advice from an external methodologist
2 Importance rating of individual problems by doctor and patient	2 Understanding the meaning of importance and the therapeutic consequences	2 Semi-structured interviews with 34 patients and 9 doctors
3 Consultation on the importance of health problems uncovered by STEP; emphasis on person-centred communication	Exploration of doctor-patient agreement on the importance of patient problems	Workshop ^{39,40} Cross-sectional study with 11 doctors and 123 patients, ¹⁸ and one with 9 doctors and 35 patients ⁴¹
4 Shared decision-making to determine priority problems	3 Understanding the patient wishes of involvement in this special consultation and the doctors' expectations and methods of involving patients	3 Semi-structured interviews with 34 patients and with 9 doctors for their 34 patients.
	4 Exploring patients' and doctors' readiness to share priority decisions	4 See 3 above
<i>Phase II: Exploratory trials</i>		
1 STEP-Assessment	1 Feasibility and acceptance, test the procedure for RCT	1 Ten doctors, 62 patients ⁴² nine doctors and 35 patients ⁴¹
2 Importance rating of individual problems by doctor and patient uncovered by STEP	2 Model responses for importance ratings (as primary outcome). Intrarater reliability of ratings. Power for RCT	2 Three pretests with 6 doctors and 29 patients. Cross-sectional study: 123 patients, 11 doctors ¹⁸
3 Consultation on the importance of health problems uncovered by STEP; emphasis on person-centred communication	3 Test PrefCheck guide for intervention	3 Audiotapes of eight doctor-patient consultations
4 Shared decision-making to determine priority problems	4 See 3	4 See 3

Intervention

The intervention consisted of an approximately 30-minute GP-training session, held on a one-to-one basis with a member of the research team, in preparation for the priority-setting consultations. In particular, GPs received training in the use of an individual

patient-related PrefCheck guide (check patients' preferences) for each consultation.

The PrefCheck guide was developed based on the findings of a pilot study with nine doctors and 35 patients (Table 1) and tested in consultations with eight patients and three GPs. PrefCheck is a three-part

document that facilitates priority setting in a patient-centred way:

- Preparation phase – part I of the guide displayed a list of the individual patient problems uncovered by STEP, together with the patient's importance ratings for each problem ('important/not important'). GPs could add any patient problems that they wanted to bring up in the consultation.
- Consultation phase – part II gave guidance on how to set priorities: (1) exploration of problems (go through the list of important patient problems and help patients to talk about their perspectives, give your perspective, bring in any additional problems important to you as a doctor); (2) negotiate and jointly determine priority problems; (3) if necessary, discuss and agree on further course of action.
- Documentation phase – part III involved GPs documenting which problems were discussed, which priorities set and any treatments planned for each problem. Treatments were grouped according to counselling, diagnostic procedures, treatments, referrals, coordination of care, watchful waiting.

Intervention GPs were given these patient-related PrefCheck guides immediately before the consultation.

The untrained control GPs were also asked to set health and treatment priorities. They only obtained the individual STEP problem lists for their consultations but were blinded to the patients' views on the importance of their problems.

Outcomes

- Description of the intervention consultation in terms of determined priorities and planned treatments,
- Doctor–patient agreement on the importance of individual health problems. Our hypothesis was that 14 days after the consultation (at t1), GPs trained in person-centred priority setting would have greater agreement with their patients on the importance of problems compared with untrained GPs of the control arm, who had set priorities without training.

Ratings and measurement

Doctors and patients rated the importance of problems on an ordinal four-point rating scale of 1, 'not important'; 2, 'slightly important'; 3, 'quite important'; and 4, 'very important'. The importance ratings of doctors and patients were paired for each problem: 'importance to patient–importance to doctor's care'. These problem-related pairs were used for testing the agreement at t1 (the main outcome).

Agreement was measured by applying the weighted kappa (κ_w) to all paired ordinal importance ratings for each doctor–patient relationship. The mean of the resulting κ_{ws} over all patients was used to analyse a difference between the intervention and control group. $\kappa_w = 0$ indicates no agreement among raters (other than would be expected by chance). Values between 0 and 1 range from slight (0.0–0.2), fair (0.21–0.4), moderate (0.41–0.6) and substantial (0.61–0.8) to almost perfect agreement (0.81–1).¹⁶

Sample size

Our sample size calculation was based on a moderate effect size of Cohen's $d = 0.5$ ¹⁷ for the outcome 'doctor–patient agreement'. We determined a mean kappa of 0.205 with a standard deviation (SD) of 0.35 in a pilot study.¹⁸ Therefore, a difference in the kappa mean of 0.175 was required. To demonstrate such a difference using a two-sided t -test with 80% power, an alpha of 0.05, on the basis of a patient cluster of 8 and an ICC of 0.05,¹⁹ 88 patients would be needed in 11 practices per group. Assuming a 20% loss of follow up, we would have to include 106 patients per group.

Statistical analysis

For the main outcome, we used the weighted kappa (κ_w) based on the ordinal four-point rating scale for all paired importance ratings per doctor–patient relationship. We tested significant differences between the intervention and control groups using a two-sample t -test for the mean κ_{ws} of each group (unadjusted analysis). A normal distribution of κ_{ws} permitted its application.

To simplify the interpretation of importance ratings for intervention doctors during their consultations with study patients and also for the ease of result presentation, we transformed the ordinal importance ratings into dichotomous responses: 'not important' (ratings 1–2) and 'important' (ratings 3–4). Hence, apart from the analysis of weighted kappas, all other results on importance ratings are based on dichotomous findings.

A multilevel logistic regression approach was applied in addition to the kappa statistics in order to account for baseline differences and cluster effects. The dependent variable 'patient–doctor agreement on importance at t1' was generated out of the paired dichotomous importance ratings for each problem. Patients and doctors entered as random effects. Adjusting variables are listed in Table 3.

Descriptive analysis involved the prevalence of important problems as assessed by doctors and patients at baseline and t1. To investigate to which extent the perceived importance of a problem was dependent on

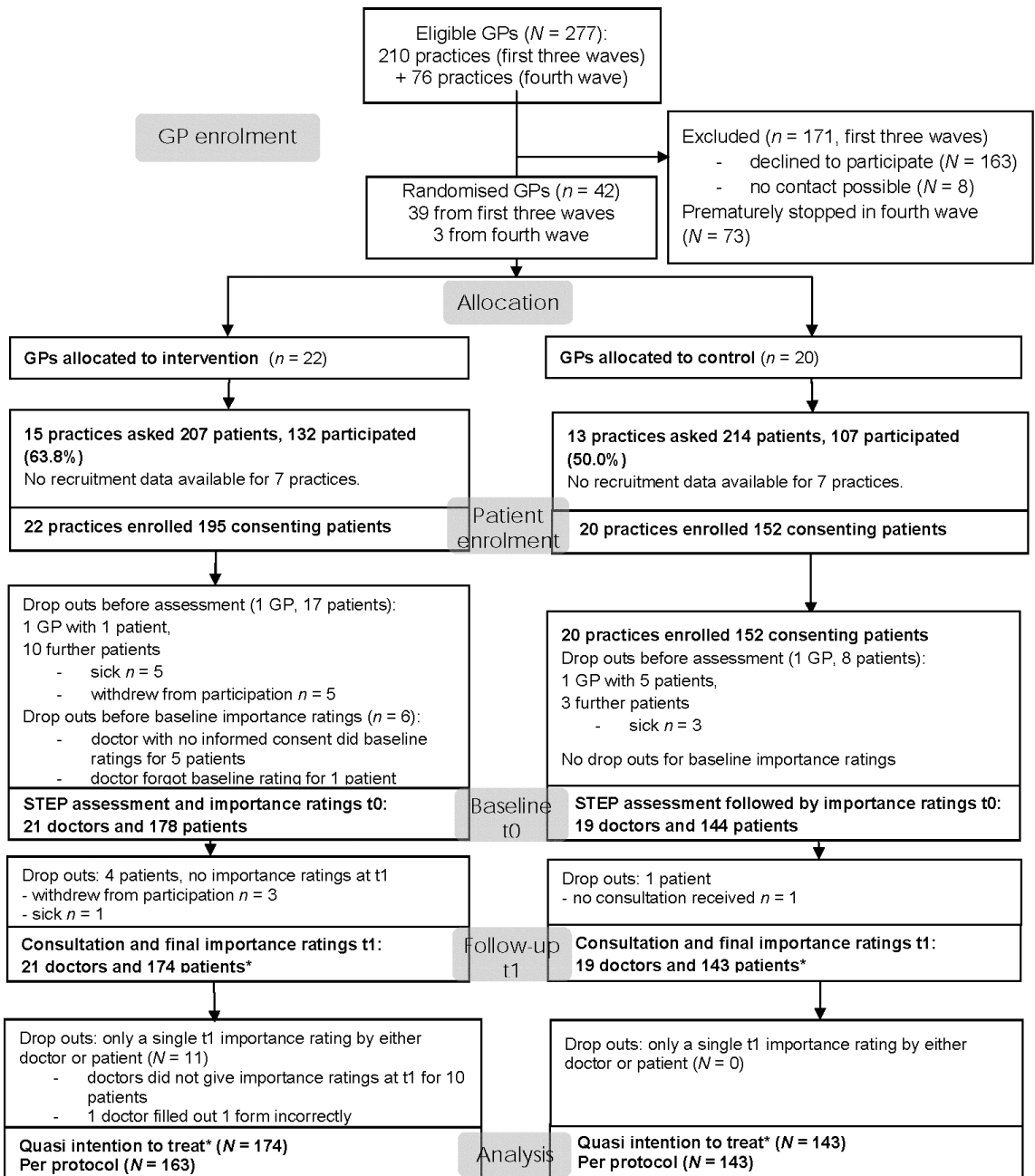
the type of problem, we grouped the dichotomous doctor and patient ratings into the 10 health domains provided by STEP.

Activities in the intervention consultations are presented as the frequency of problems that were discussed, prioritised and that led to treatment planning. These activities were also related to the perceived importance of problems at t0. StatXact v. 8, Stata 12 and SPSS 18 were used.

Results

Recruitment and characteristics of GPs

The study was carried out between July 2009 and July 2010. Participation in the first three recruitment waves included 18.6% (39/210) of all GPs; the fourth wave was stopped prematurely because only three more practices were required. Two GPs dropped out before the baseline survey so that 40 practices provided data (Figure 1). The characteristics of the 21 intervention



*For a quasi intention to treat analysis it was predefined that a control or intervention consultation was necessary and at least one importance rating at t1 (primary outcome) by either doctor or patient.

Figure 1 Consort flow chart

GPs did not significantly differ from the 19 control GPs (Table 2). Data from the Regional Association of Statutory Health Insurance Physicians from 2010 indicated that our participating GPs were on average slightly younger than the average GP in this region (50.1 vs 53.8 years), and the percentage of female GPs in our sample was also higher (47.5 vs 34.3%).

Recruitment and baseline characteristics of patients

Three hundred and forty-seven patients initially agreed to participate (projected participation rate 57%; Figure 1). Twenty-five patients dropped out before baseline data collection due to the withdrawal of the two GPs, patients' withdrawals of consent or interfering illness. Five further patients dropped out before any importance rating at t1 was completed (main outcome). This left 317 patients for analysis (Figure 1).²⁰ Baseline characteristics are given in Table 2. Importantly,

Table 2 GP and patient characteristics, baseline ratings

Characteristics	Total	(%)	Intervention	(%)	Control	(%)
GPs	40		21		19	
Female (<i>N</i>)	19	47.5	10	47.6	9	47.3
Average age (years)	50.1		48.5		51.9	
Average practice experience (years)	14.2		13.4		15.1	
Teaching practices	23	57.5	14	60.9	9	39.4
Single practices (<i>N</i>)	21		9		12	
Patients	317		174		143	
Female (<i>N</i>)	195	61.5	101	58.0	94	65.7
Average age (years)	77.2		76.9		77.5	
Average education (index)	1.89		1.90		1.87	
Average income (index)	1.88		1.81		1.97	
Health problem count (<i>N</i>)	11.4		10.5		12.5	
Average worries about health ^a	2.1		2.0		2.3	
Average autonomy ^b	1.90		1.76		2.06	
Average doctor–patient relationship (years)	10.7		11.6		9.7	
Average number of acute illnesses during follow up	2.14		2.43		1.82	
Average number of practice visits during follow-up	2.68		2.37		3.02	
Baseline ratings	<i>N</i> = 3615		<i>N</i> = 1827		<i>N</i> = 1788	
Important problems for patients	1914	52.9	960	52.2	954	53.4
Important problems for GPs	2260	62.5	1038	56.8	1222	68.3
Agreement on importance for patient– GP	1909	52.8	951	52.1	958	53.6
Ø κ _W per doctor–patient relationship (<i>N</i> = 317 total, 174 intervention, 143 control)	0.0635	± 0.27	0.0461	± 0.28	0.0846	± 0.25

Ø κ_W, mean weighted kappa. ^a 'Do you worry about your health?': (1) *no worries* to (4) *many worries*. ^b 'Important medical decisions should be made by your doctor and not by you': (1) *totally agree* to (5) *not agree at all*.

control patients had significantly more health problems uncovered by the STEP assessment than intervention patients and were more worried about their health.

Baseline importance ratings of health problems and their doctor–patient agreement (t0)

Independent of randomisation, patients considered about half of their problems uncovered by STEP to be important, and GPs rated even more problems as important for their care. The group-specific analysis revealed that the importance ratings of control doctors significantly exceeded those of intervention doctors, although GPs had been allocated to groups at random (Table 1).

The type of problem had a bearing on what mattered to patients and to doctors. Figure 2 illustrates the different perspectives on the importance of problems for the health domains of STEP. Missed vaccinations, a failed clock-drawing test, medication- and lifestyle problems were frequently important to doctors' care. Patients mostly considered self-named problems (problems not covered by the assessment and therefore added by the patient), social and functional everyday problems as more important (Figure 2).

Agreement was > 50% for all paired problem ratings on importance regardless of arm assignment. The weighted kappa indicated that, if chance agreements were disregarded, agreement accounted for just 6% of all rated problems (Table 1).

Importance ratings on health problems and their doctor–patient agreement (t1)

Two weeks after the initial consultation, intervention and control patients rated more problems as important

(58%) than at baseline (53%). GPs found about the same proportion of problems important for their care (62% compared with 63% at t0). The marked difference between intervention and control doctors observed in t0 prevailed at t1 (Table 3).

Agreement on the importance of health problems for the rating pairs 'important to patient- to doctor's healthcare' amounted to 58% compared with baseline findings (53%), and surprisingly higher in the control compared to the intervention group (Table 3).

The multilevel logistic regression model, adjusting for clusters and baseline differences, demonstrated that assignment to the intervention or control group did not significantly predict doctor–patient agreement on health problem importance at t1 (Table 4).

What happened in the intervention consultation?

In order to avoid a Hawthorne effect for the control GPs, only intervention GPs documented their actions for the patient problems in each consultation. They determined priorities with 70% of patients and planned at least one treatment for 90%.

Twenty per cent of all uncovered health problems were agreed as priority problems (369/1827). The health domains with the greatest proportion of priorities were 'function', 'vaccination' and 'physical symptoms' (Table 5). In one-fifth of all priority problems (70/369), doctors had rated these as unimportant beforehand. Thus in the priority-setting consultations, they accepted the patients' differing perspective. Similarly, patients accepted as priorities 20% of problems which they had initially considered unimportant (72/369). Table 5 also shows those health domains with which patients and GP convinced the other party in the priority-setting process: patients emphasised social, self-named and functional problems, whereas GPs prioritised failed clock-drawing tests, vaccinations, lifestyle and medication issues. The top seven prob-

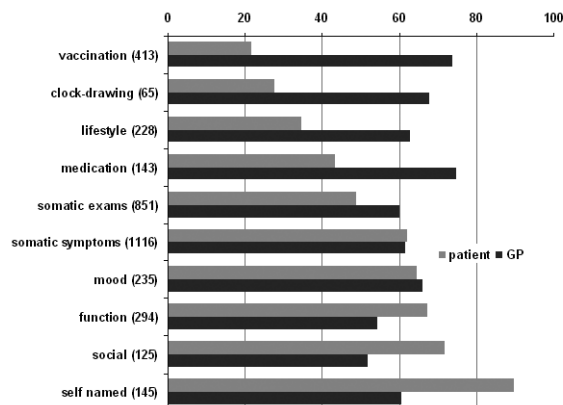


Figure 2 Percentage of important problems as rated by doctors and patients – stratified according to the 10 health domains provided by the STEP assessment

Table 3 Importance and agreement ratings of individual health problems at t1

Importance ratings, and doctor–patient agreement on importance of patient's problems <i>N</i> (%), κ_W *	Total <i>N</i> =3615	(%)	Inter- vention <i>N</i> =1827	(%)	Control <i>N</i> =1788	(%)	<i>P</i>
Important problems t1							
Patients	2106	58.3	1063	58.2	1043	58.3	0.927 ^a
GPs for their care/treatment	2240	62.0	1026	56.2	1214	67.9	< 0.001 ^a
Agreement t1							
Patient–GP for care/ treatment	2101	58.1	1014	55.5	1087	60.8	0.001 ^a
\emptyset κ_W per doctor–patient relationship (<i>N</i> = 317 total, <i>N</i> = 174 intervention, <i>N</i> = 143 control)	0.1015	\pm 0.27	0.0697	\pm 0.27	0.1397	\pm 0.28	0.026 ^b

\emptyset κ_W , weighted kappa; ^a χ^2 -test, ^b *t*-test.

Table 4 Multilevel logistic regression model on doctor–patient agreement (t1) of the importance of the patient's health problems

Agreement: patient–doctor for care	Odds ratio	<i>P</i>	95% CI
Allocation to intervention/control group	1.21	0.062	0.99–1.47
Important problem for patient (t0)	1.26	0.005	1.07–1.48
Relevant problem for doctor's care (t0)	1.35	<0.001	1.15–1.59
GP's practice experience (years)	1.00	0.714	0.75–1.17
GP working in group practice	0.94	0.566	0.99–1.02
Patient age (years)	1.00	0.702	0.98–1.02
Patient gender	0.90	0.350	0.72–1.12
Patient education	0.90	0.300	0.73–1.10
Patient income	1.07	0.373	0.92–1.25
Health problem count	1.00	0.999	0.98–1.03
Worse self-rated health (t0)	0.97	0.740	0.83–1.15
More worries about health (t0)	1.12	0.041	1.00–1.25
Less patient autonomy (t0)	0.96	0.342	0.89–1.04
New illness during follow up	1.13	0.315	0.88–1.45
Visit to GP during follow up	1.00	0.892	0.99–1.01
Length of doctor–patient relationship (years)	1.00	0.173	0.98–1.00

lems that patients and GPs managed to unilaterally identify as a priority are presented in Table 6.

Nearly all determined priorities received treatment planning (84% as opposed to 37% for non-priority problems). Again, 25% of problems that entered treatment planning were found important by GPs alone and 21% solely by patients. Priority problems received more active treatment planning (diagnostic testing, referral, start or change of treatment) than non-priority problems (watchful waiting) (Figure 3).

Discussion

In our study, older patients and their GPs showed poor agreement on the importance of patients' health problems. Our training programme for a structured consultation did not significantly improve agreement on the importance of health issues.

This study, however, highlighted that a structured patient-centred consultation provides the foundation for an exchange of views and negotiated care. Both doctors and patients altered their original views in

20% of cases during the process of jointly prioritising problems which in turn facilitated treatment planning. For nearly all priority problems, treatment planning took place; this was in marked contrast to non-priority problems, suggesting that if doctors and patients discuss their views on the importance of problems and agree on priorities, unmet needs will be exposed and clarified.

Agreement: does it matter?

Our baseline analysis on doctor–patient agreement reveals that 'normal' consultations do not bridge the divide between patient and GP perspectives despite long-standing relationships. Patients tend to rank health problems that affect their well-being and everyday life higher than GPs, who focus on medical problems and risk factors.^{18,23}

It has been shown that doctor–patient concordance cannot be taken for granted. Divergent views are evident for disease relevance,^{18,23} disease impact,^{23,24} quality of life,²⁵ exchange of information on diagnosis and prognosis,²⁶ patient expectations^{27,28} and treatment preferences.²⁹ Doctor–patient agreement is an indicator

Table 5 Percentage of priorities set for each health domain and their importance to GPs and patients

10 STEP domains	Problems			Priorities		Priority problems important to...			
	N	N	%	N	%	Doctor alone	Patient alone	Joint ^a	
Health domain	N	N	%	N	%	N	%	N	%
Vaccination	204	51	25.0	18	35.2	3	5.9	30	54.5
Clock-drawing	27	4	14.8	2	50.0	0	0.0	2	50.0
Lifestyle	117	14	11.9	6	42.9	2	14.3	6	42.9
Medication	69	10	14.5	3	30.0	0	0.0	7	70.0
Somatic exams	456	77	16.9	12	15.6	13	16.9	52	67.6
Somatic symptoms	565	136	24.1	21	15.4	29	21.3	86	63.2
Mood	123	22	17.8	5	22.7	4	18.2	13	59.0
Function	133	35	26.3	2	5.7	12	34.2	21	60.0
Social	55	9	16.4	0	0.0	5	55.6	4	44.4
Self-named problems	78	11	14.1	1	9.1	4	36.4	6	54.5
All problems	1827	369	20	72	19.5	70	19.0	227	61.5

^a Problems considered jointly important or unimportant by doctor and patient.

Table 6 Priority problems determined despite different importance ratings between GPs and patients (there were 369 priorities set for 46 health problems in 174 patients; only priority problems with a prevalence of > 5% are included)

Single problems determined as a priority	Prevalence of patients with this priority		Patients asserted themselves ^a		Problems determined as a priority	Prevalence of patients with this priority		GPs asserted themselves	
	N	%	N	%		N	%	N	%
Action of bowels	13	7.5	9	69.2	Pneumonia vaccination	17	9.8	8	47.1
ADL ^b	16	9.2	7	43.8	Breathlessness	13	7.5	4	30.8
Foot disorders ^c	10	5.7	4	40.0	Medication	10	5.7	3	30.0
Sleeping disorders	9	5.2	3	33.3	Foot disorders	10	5.7	3	30.0
Incontinence	12	6.9	4	33.3	Chest pain	15	8.6	4	26.7
Self-named difficulty	10	5.7	3	30.0	Hypertension	20	11.5	5	25.0
Managing daily tasks	12	6.9	3	25.0	Arrhythmia	10	5.7	2	20.0

^a Patients managed to achieve priority-setting for a problem that was not important to the GP. ^b Activities of daily living. ^c Any foot disorder discovered during a foot examination by study nurses.

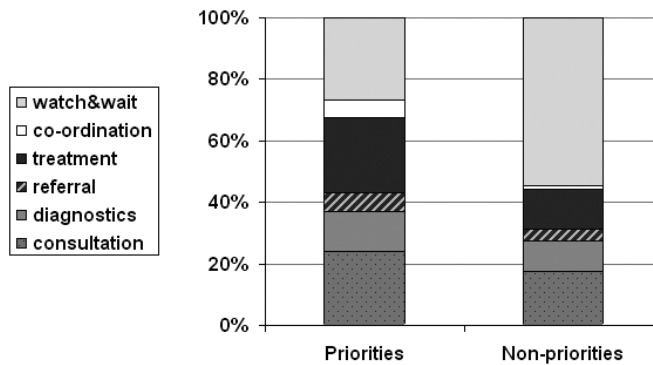


Figure 3 Specific treatments planned for 311 priority problems and 546 non-priority problems. Priority problems had 389 treatments planned in total, and non-priority problems had 578 treatments planned

of the adequacy and effectiveness of information sharing.³⁰ It lays the foundation for a trusting doctor-patient relationship, for better patient adherence and for improved health outcomes.³¹ Agreement is also an ethical requirement for shared decision-making and for deciding individual priorities.³²

Our intervention, involving a patient-centred consultation, did not lead to an improvement in doctor-patient agreement. Why this occurred is not obvious. On the one hand, it is possible that the role of the medical expert and that of the patient entail insolvable

disagreement;³³ On the other hand, shortcomings in our study design may have contributed to the only small overall improvement in agreement.

Limitations of our study

In contrast to the kappa statistic applied for measuring concordance of ratings of importance,³⁰ importance ratings themselves are not established outcomes in healthcare research. We may have expected too much of the GPs by asking them to re-evaluate the importance

of as many as, on average, 12 problems per patient after the consultation, although they could make use of their notes.

Our originally planned longer training course for intervention GPs was met with considerable resistance because of time concerns and so had to be altered to briefer face-to-face training. Also due to feasibility concerns, no extra session times for the priority-setting consultations were arranged. A busy atmosphere during normal sessions may have interfered with resolving differences in doctor–patient views even though priority-setting consultations were longer than average. The randomisation of doctors did not grant us evenly balanced importance ratings between intervention and control doctors at t0 – possibly due to the small number of clusters.

Finally, our participating GPs differed in characteristics from the average GP practising in this area.

Implications for future research and practice

A health overview, as provided by the STEP assessment, provides an opportunity for doctors and particularly patients to identify health topics that really matter. This type of doctor–patient communication takes the complexity of multimorbidity into account and helps decisions on priorities for management. This kind of procedure is needed but not yet really practised.^{34–36}

We investigated whether a patient-centred priority-setting approach was able to reconcile differences in views of patients and doctors on the importance of health problems. Our intervention was not successful in showing a sustained effect on improved doctor–patient agreement for individual health problems. However, the practice of negotiating priorities increased awareness of problems previously only important to one party. Unmet needs were discovered, as reflected in the fact that treatments were planned for nearly all priority problems. The new awareness of what was important to the other party extended to the planning of treatments.

Our priority-setting approach is work-intensive. Further research should explore different methods of priority setting. There is also a need to show whether a more sustained priority-setting approach impacts on long-term health and care experiences. A simplified iterative consultation with joint priority setting, reflection and re-evaluation, may be the way forward.

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ETHICAL APPROVAL

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CONFLICTS OF INTEREST

None declared.

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