

## GPs' considerations in multimorbidity management:

a qualitative study

### Abstract

#### Background

Scientific evidence on how to manage multimorbidity is limited, but GPs have extensive practical experience with multimorbidity management.

#### Aim

To explore GPs' considerations and main objectives in the management of multimorbidity and to explore factors influencing their management of multimorbidity.

#### Design and setting

Focus group study of Dutch GPs; with heterogeneity in characteristics such as sex, age and urbanisation.

#### Method

The moderator used an interview guide in conducting the interviews. Two researchers performed the analysis as an iterative process, based on verbatim transcripts and by applying the technique of constant comparative analysis. Data collection proceeded until saturation was reached.

#### Results

Five focus groups were conducted with 25 participating GPs. The main themes concerning multimorbidity management were individualisation, applying an integrated approach, medical considerations placed in perspective, and sharing decision making and responsibility. A personal patient–doctor relationship was considered a major factor positively influencing the management of multimorbidity. Mental-health problems and interacting conditions were regarded as major barriers in this respect and participants experienced several practical problems. The concept of patient-centredness overarches the participants' main objectives.

#### Conclusion

GPs' main objective in multimorbidity management is applying a patient-centred approach. This approach is welcomed since it counteracts some potential pitfalls of multimorbidity. Further research should include a similar design in a different setting and should aim at developing best practice in multimorbidity management.

#### Keywords

comorbidity; focus groups; multimorbidity; patient-centredness; primary care; qualitative research.

### INTRODUCTION

Multimorbidity is described as 'the presence of multiple chronic conditions'.<sup>1,2</sup> Definitions of multimorbidity and the related concept of comorbidity lack uniformity, which hinders comparability of results of clinical and epidemiologic studies.<sup>3</sup> Any prevalence estimate of multimorbidity heavily depends on the number of conditions considered and the population under study.<sup>4–6</sup> Estimates in adults in general practice or population-based settings that are not confined to older age groups vary from 16 to 58%,<sup>4,7–9</sup> with outliers up to 90%.<sup>10</sup>

With increasing numbers of medical conditions within one patient, hospital admission rates and healthcare expenditures raise dramatically.<sup>11</sup> Patients with multimorbidity account for most consultations in primary care;<sup>4</sup> they present more intercurrent morbidity in doctor visits than patients with single diseases,<sup>12</sup> and GPs deal with the majority of these 'additional' patient visits.<sup>13</sup>

For patients, multimorbidity has negative consequences in terms of quality of life as well as mortality.<sup>14–16</sup> In recent years, a number of qualitative studies have been published, focusing on patients' views of and experiences with multimorbidity. Specific aspects arising from these studies were problems with medication and management,<sup>17–20</sup> interaction of one

condition with another,<sup>17</sup> difficulty in perceiving and recognising symptoms,<sup>20</sup> and problems with logistics or organisation of care.<sup>21</sup>

Studies of healthcare professionals' experiences and management of multimorbidity reported lack of time for appropriate management and organisational and logistical challenges, but included small numbers of practitioners.<sup>22–24</sup> Decisions on patients with multimorbidity demand a focus exceeding the single disease level. This makes it relevant to explore in depth the decision-making process among physicians. Managing multimorbidity is daily practice for most GPs, even though evidence and guidance is limited.<sup>1–3,25</sup> As a consequence, GPs' experiences might provide useful insights for coping with patients with multimorbidity.

This qualitative study explored GPs' considerations and main aims in the management of multimorbidity. The secondary objective was to explore factors influencing this management in daily practice.

### METHOD

#### Study design and participants

Focus group interviews with Dutch GPs were carried out. In the Netherlands, all patients are enlisted with a GP, who on average deals with more than 95% of presented medical problems<sup>26</sup> and

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## How this fits in

Patients with multimorbidity have lower quality of life and experience problems with the organisation of their care. Healthcare professionals reported practical problems in multimorbidity management, but previous studies included only small numbers of physicians. This study showed that GPs consider 'patient-centredness' as the most important goal when taking care of patients with multimorbidity. GPs are well suited to bring such aims into practice, for example by coordinating care for this patient group. Attention for multimorbidity in medical training is needed.

arranges referral to secondary care when needed. For those who receive specialist care, the GP remains involved in their health care.

Participants were recruited among GPs working within 40 miles of Nijmegen, in the eastern part of the Netherlands, through mail and telephone contact. A purposive sampling strategy was applied to ensure heterogeneity in characteristics such as age, sex, and urbanisation among the participants. Stepwise sampling was performed,<sup>27</sup> as in qualitative research, sampling, data collection and analysis typically occur in an iterative process. Academic involvement was recognised as characteristic, possibly influencing a participant's beliefs concerning the research question and led to sampling of participants with and without involvement of research or training in the GP residency programme.

As it was expected that GPs would contribute substantially to the discussion due to familiarity with the topic, the number of participants in each focus group was kept relatively low (four to six), thereby allowing all GPs to express their ideas. The groups were large enough to potentiate discussion and produce new insight.

All GPs consented to participate and anonymity and confidentiality were ensured. Participants were offered a gift voucher and compensation of travel expenses in appreciation of their efforts. Interviewing healthcare professionals with respect to professional beliefs does not require approval of an ethics committee according to Dutch legislation.

### Focus group interviews and data collection

Moderator of the focus groups was a GP-senior researcher with extensive experience in qualitative research and in moderating

focus groups. An interview guide was used to cover items addressing the research question [Further details are available from the author]. Its construction was based on discussions in the research team and a test session with junior researchers and residents in the university department. Member checking to improve validity was performed informally during focus group sessions.<sup>28</sup>

One researcher observed all groups and made field notes of non-verbal communication. The interviews lasted 75–90 minutes.

All group interviews were audiotaped and transcribed verbatim by a medical student. The observer checked the transcripts during tape listening and corrected these when necessary.

### Analysis

Analysis was performed using the technique of constant comparative analysis.<sup>29</sup> Two data analysts first familiarised themselves with the data, and subsequently applied open coding, hereby conceptualising the data. Codes were tabulated and connected in the axial coding phase. Selective coding was used at the highest level of abstraction, in which the core variable guided further relevant coding, and the data were sought for invalidating examples.

The two analysts discussed the initial coding and consulted a senior researcher in case of disagreement. Interpretation of the main theme was discussed in the entire research team. Data collection proceeded until saturation was reached, meaning that no new major themes arose from analysis. This was the case after the fifth focus group meeting. Analysis processing was supported by Atlas.ti software.

The methods applied were appropriate in light of the philosophical paradigm 'realism' we feel most aligned with.<sup>28</sup> This paradigm fits the authors' backgrounds as primary care physicians and as participants of quantitative as well as qualitative research.

## RESULTS

### Participants

Five focus group interviews were conducted between September 2010 and March 2011 with 25 GPs, with a mean age of 50 years. Characteristics of the participants are presented in Table 1. Sufficient heterogeneity in their characteristics was reached.

### Overview of results

The main themes in the management of

**Table 1. Characteristics of the 25 participating GPs<sup>a</sup>**

	n (%)
<b>Sex</b>	
Male	18 (72)
Female	7 (28)
<b>Practice type</b>	
Single <sup>b</sup>	4 (16)
Duo or group	21 (84)
<b>Urbanisation</b>	
Rural area	2 (8)
Urbanised rural area	16 (64)
Urban area	7 (28)
<b>Researcher</b>	
Yes	5 (20)
No	20 (80)
<b>GP trainer<sup>c</sup></b>	
At present	11 (44)
In the past	1 (4)
Never	13 (52)
Mean age, years	50
(range)	(31–63)
Mean experience as GP, years	20
(range)	(2–36)

<sup>a</sup>Sex, age, practice type and urbanisation were similarly distributed among participants in our sample as compared to the Dutch professional group of GPs.<sup>26</sup> <sup>b</sup>Trainer at the Nijmegen GP training programme, a qualification needed to supervise a GP trainee.

multimorbidity were individualisation, applying an integrated approach, medical considerations placed in perspective, and sharing decision making and responsibility. A personal patient–doctor relationship was considered a major facilitator in the management of multimorbidity. Presence of mental-health problems was regarded as complicating factor. Participants also experienced difficulties resulting from conditions interacting with each other and several practical problems. Overarching concept of the main findings is patient-centredness.

Group discussions were focused on older and disabled people. The results are classified in two sections, ‘management of multimorbidity’ and ‘influencing factors’, and discussed in more detail below.

### Management of multimorbidity

**Individualisation.** This theme was discussed at length in each focus group and reappeared in discussions on other themes. GPs agreed on the need to adapt management of multimorbidity to personal circumstances of these patients, such as vitality, personal preferences (for example retaining independence as the ultimate goal) and socioeconomic conditions. They stressed the importance of tailoring care to the individual and tried to understand the meaning of illness for a person:

*‘There are people that take lots of risks in their lives and there are people that are very careful. I think that tendency carries over in medical decision-making.’* (GP7, male, 56 years)

*‘From a medical perspective, I’d say don’t bother, eh, with hemiparesis and, uh, but he wanted to, and I know why. It’s because his wife has dementia and he’s her [caregiver].’* (GP19, female, 52 years, talking about resuscitation)

**Integrated approach.** GPs often stated that adhering to standard regimens or strict guidelines was unwanted, as it contradicts their integrated perception of a unique person with a specific combination of diseases. Particularly in multimorbidity, fragmentation of care is a pitfall. GPs perceived a disease-centred approach as insufficient, because multiple conditions and corresponding advices need integration and coordination. Many perceived a coordinating role appropriate for GPs:

*‘[Patients have] the sense that they’re a collection of organs and, uh, there’s*

*someone that does some work on one part and someone else that does work on another part, and the whole, yeah, that’s your job as a GP, to keep an eye on the whole of the parts.’* (GP1, female, 36 years)

*‘Precisely when there is multimorbidity, we as GPs have a role of increasing importance. So I think we all need to take responsibility here, and should not have the specialist responsible. [...] I am the one who draws up the balance, because in the hospital, there is no generalist.’* (GP7, male, 56 years)

Participants brought up the need for a generalist approach in multimorbidity and explained how they attempted to achieve this. The total burden of diseases and other relevant problems were taken into account when patients present single diseases:

*‘You can’t just quickly check for diabetes. That’s a useless endeavor as far as I’m concerned, because, in the meantime, there’s the gout and the arthritis and this and that. And you need to take that into account as well.’* (GP13, male, 45 years)

**Medical considerations placed in perspective.** It was noted that, in patients with multimorbidity, other considerations can become complementary or even superior to medical motives, although, unsurprisingly, multimorbidity management is primarily based on medical motives.

Patients’ quality of life was the main focus of GPs’ professional performance. However, converting this aim into appropriate medical practice was a struggle for many GPs. They incorporated patients’ life-expectancy and age in medical decisions. Many GPs shifted their focus towards present comfort if prognosis was limited. In such cases, most GPs chose symptom relief over causal treatment:

*‘When you are dealing with multiple conditions [...] there’s increasingly more disability as the end of one’s life nears, so to speak. You then approach things differently, eh. All the medical stuff becomes relative. And reaching targets becomes less important and checking stats, and crossing the Ts and dotting the Is [...] becomes less important.’* (GP13, male, 45 years)

In all groups, the search for a balance between the patient’s ‘disease’ and ‘illness’ was expressed in different wordings:

*‘That’s difficult. See, it’s always a matter of finding a balance between what the patient*

wants, the burden of the treatment for him, and the potential good you think it will do. And what does the patient experience as good?' (GP24, male, 56 years)

#### *Sharing decision making and responsibility.*

GPs agreed that they want to involve their patients' perspectives and preferences into the decision-making process. Exploring and mutually explaining ideally resulted in 'shared decision making':

*'I don't want anything, he said [...] and, even then, you need to explain exactly what it is he's opting for and then you can, in my opinion, even with very elderly people, you can jointly decide on things.'* (GP7, male, 56 years)

Involvement of patients and other caregivers implied that not only decisions, but also responsibilities, are shared. In general, GPs expressed a broad sense of responsibility:

*'Well, I think it pretty much means that I provide care to that patient and that I get an update every year and half on how his organs are doing. But I feel responsible for him.'* (GP7, male, 56 years)

*'I do indeed think that it's simply our job to, uh, try to keep tabs on things — maintain an overview — and provide information and then check things, and to let the patient think with you, that is, if you think that's realistic.'* (GP5, female, 33 years)

Most GPs agreed that shared responsibility implies that different viewpoints of doctor and patient should be anticipated:

*'You see, if someone repeatedly says, sure, nice idea doctor, and I know what it all means but it's not for me, then, then I will, in time, support that patient's choice.'* (GP14, male, 63 years)

They expressed variation in the responsibilities allocated to themselves when care provision to patients with multimorbidity was shared with medical specialists.

GPs who felt comfortable with disease-management to be primarily arranged by specialists for 'independent' patients, tended to act more as coordinator when a patient was more 'care dependent':

#### **Influencing factors**

*Personal relationship.* Over time, Dutch GPs

build a longstanding, rather personal relationship with most patients, certainly in the case of multimorbidity:

*'But the fact that you've known the patient for a long time by then obviously makes a difference.'* (GP12, female, 58 years)

This was considered to facilitate multimorbidity management, with continuity of care as an elementary component. Apart from explicit comments GPs made on its importance, the personal relationship between GP and patient could be noticed implicitly from comments on personal events of patients:

*'I think that you need to gain the trust of the patient, and that trust can be gained, I think, by showing interest, eh, by talking with them about the social context.'* (GP14, male, 63 years)

*'We see how they interact with their children. We see how they interact with their neighbours. We sometimes have a much, uh, broader view.'* (GP2, male, 60 years)

*'Yeah, but this is my bicycle repairman [...] It's Harry!'* (GP5, female, 33 years)

*Mental-health problems.* Most participants mentioned that a co-existing psychiatric disorder substantially complicated their management of chronic somatic illnesses. Diagnostics are hindered ('overshadowed') because these patients show a different symptom presentation. Moreover, GPs regarded patients with medically unexplained symptoms as another difficult group in the case of multimorbidity. Although precisely the presence of multimorbidity raised appreciation, patients suffering from anxiety about having various diseases seemed to be considered as more bothersome by some GPs. Furthermore, cognitive impairment of patients with multimorbidity heavily impedes the management as it results in limited feasibility of adherence to treatment regimens:

*'They come back another time with somatisation ...-like complaints. And then I start to find it awfully complicated.'* (GP2, male, 60 years)

*'You have [older people] who have 10 different health complaints, but they sit down and it's clear they have one new problem — this and that is wrong with me. But chronically depressed patients, they*

*come in and they tell you that but they also tell you about 10 other complaints, this is bothering me and could you just take a look at this [...] that always makes it more difficult to consider new explanations for the complaints.* (GP24, male, 56 years)

**Interacting conditions.** Interaction of several conditions when patients have multimorbidity resulted in difficulties in diagnostics as well as in therapeutics. Assignment to which condition specific symptoms should be attributed to could be difficult:

*'Often their complaints cannot easily be traced back to one single condition.'* (GP6, female, 31 years)

*'What does this fit with? Which condition? [...] He had intestinal ischemia of the mesenteric artery, and then he had abdominal pain so he came back with abdominal complaints, but he also has IBS [irritable bowel syndrome].'* (GP23, male, 51 years)

Some GPs described that an explanation is sought within known conditions and the option of an additional disease is easily overlooked. At a therapeutic level, multiple conditions might demand conflicting approaches, such as steroid administration to patients with diabetes:

*'I have someone [...] whereby it's clear that what helps one complaint harms another.'* (GP5, female, 33 years)

Another problem could be appropriate problem registration in the patient's medical record.

**Practical problems.** GPs experienced several practical aspects as impeding multimorbidity management. In general, they felt there was insufficient time and compensation for consistently putting into practice their main objectives. Polypharmacy, considered a distinct issue associated with multimorbidity, was experienced by most as potentially harmful yet hard to reduce. Moreover, coordination and overview on medication were hard to maintain. Importance of the GP being well informed on a patient's current medication was stressed:

*'To me, it's often difficult to ehh, maintain an overview. These patients see quite a number of different specialists, and to me it seems that one specialist still doesn't know what*

*the other ones are doing.'* (GP23, male, 51 years)

## DISCUSSION

### Summary

This study explored GPs' considerations and main aims in managing multimorbidity. These were individualisation, applying an integrated approach, medical considerations placed in perspective, and sharing decision making and responsibility. A personal patient-doctor relationship was considered beneficial. Major impediments in multimorbidity management, besides some practical problems, were mental health problems and interacting conditions. The main considerations of GPs perfectly fit in the concept of patient-centredness. The GPs in this study considered this as most important when managing patients with multimorbidity.

### Strengths and limitations

The study sample has a high percentage of academically-engaged GPs but there were no important differences in opinions with GPs without academic involvement. Although qualitative research does not allow for generalisations, this sample's resemblance to the Dutch GPs' professional group improves the transferability of the study's findings.<sup>26,27</sup>

With this qualitative approach GPs' considerations and main aims in multimorbidity management were explored. Conclusions cannot be drawn regarding actual behaviour; however, assessment of behaviour fell outside the scope of this study.

Rigorous qualitative methods were applied. A focus group study was considered to be an appropriate qualitative approach, since opposing perspectives could lead to a deeper exploration of GPs' attitudes and experiences.<sup>30</sup> Data collection continued until saturation was reached, as prescribed in qualitative methodology.

Focus groups were conducted in the Dutch language. Illustration of representative quotations needed translation, which may have caused loss of some refining. This effect was reduced as much as possible as the translation was performed by a native English speaker who works as a healthcare scientist.

To the authors' knowledge, this is the first qualitative research paper focusing on multimorbidity from the perspective of primary care physicians specifically. An important and new finding was their strong emphasis on patient-centredness. In the authors' opinion, this novelty is the major strength of this study.

### Comparison with existing literature

Several conceptual models of patient-centredness in primary care exist.<sup>31,32</sup> Common factors in these models are 'regarding the patient as whole person', 'attention to both disease and illness', 'sharing power and responsibility' and a 'personal doctor-patient relationship'.<sup>33</sup> This last factor came up as facilitator to multimorbidity management in the current study. The considerations 'individualisation' and 'integrated approach' can jointly be regarded as matching 'regarding the patient as whole person', since they emphasise to apply a holistic, personalised approach. 'Medical considerations placed in perspective' corresponds with 'attention to both disease and illness' because both stress that the biomedical model needs to be complemented with the patient's perspective. 'Sharing decision making and responsibility' matches 'sharing power and responsibility'.

This study's findings can serve as examples showing that the participating Dutch GPs considered a patient-centred approach most important in their care for patients with multimorbidity.

The main barriers identified in multimorbidity management were associated with the complexity of diagnosis (interaction, mental-health problems) and treatment (polypharmacy and interaction). From the viewpoint of patient-centredness, these can be perceived as compromising the achievement of shared decision making and the application of an integrated approach. It is possible that achieving 'integration' is more challenging as the number of dimensions that need to be integrated (such as, biomedical, psychological, and socioeconomic), increases. Ideally, clinicians display patient-centredness persistently, but the need to rely on it may grow with increasing complexity, for instance in multimorbidity. This idea is supported by the finding that professionals' management of multimorbidity in heavily deprived areas has an even stronger emphasis on the 'whole person', seeming to overrule biomedical considerations completely.<sup>34</sup> Other work showed that realising concurrent effective management of somatic and mental conditions is hard.<sup>35</sup> Kendrick *et al* have shown that patients with depressive symptoms with comorbidity were less likely to receive prescriptions or referral than those without comorbidity, accentuating the complex relationship between coexisting somatic and mental illness.<sup>36</sup>

Multimorbidity comes along with potential pitfalls, such as opposing

treatment strategies and fragmentation of care, stimulated by disease-centred reimbursement systems, and it challenges our capacities for organisation of care including recording of clinical information; therefore patient-centredness is warranted.<sup>1,37-43</sup> Patient-centredness can be regarded as 'tool' to counteract multimorbidity's potential pitfalls. It could be perceived as intuitively appropriate and thus a common sense result. However, it is an important finding that has not arisen from earlier studies. GPs, supported by a personal relationship with the patient, are the healthcare professionals with an excellent background to put patient-centredness into practice. They have broad generalist knowledge, enabling them to balance patient level consequences from several conditions. Interaction of multiple diseases and medications demands integrated care with someone watching over it being coordinated. Who else than the familiar and accessible GP should be more suited to play this role? It would demand the flexibility to focus on general and patient-level formulated outcomes, instead of disease-specific outcomes. Awareness can be raised and skills improved by paying attention to multimorbidity in training to both pre- and postgraduates.

This study sampled only GPs while previous studies also included nurses and pharmacists.<sup>22-24</sup> As a consequence, the current study allowed an in-depth focus on GPs' considerations in multimorbidity management. Originating from a specific professional perspective and educational background, doctors, nurses and other professionals might well display different considerations and objectives in their care for patients with multimorbidity. This reasoning is supported by different accents displayed in GPs' and practice nurses' visions on multimorbidity.<sup>34</sup> An in-depth identification of the considerations and perceived barriers and facilitators from specific professional groups separately could be considered a first step towards optimal integration of each group's specific knowledge and skills.

Earlier qualitative work identified expressions of uncertainty by professionals about their ability to manage the complexities following from multimorbidity.<sup>23</sup> Although this study located certain similar remarks, it also identified opinions stressing that GPs are appropriate professionals to deal with multimorbidity due to their generalist approach, and should be considered as experts in this regard.

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### Ethical approval

Ethical approval was not applicable.

### Provenance

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### Competing interests

The authors have declared no competing interests.

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Perceived barriers to multimorbidity management in this study, contrasting with the earlier studies, were not confined for the greater part to practical consequences such as workload or inconvenience, but extended to the more conceptual level of multimorbidity and included diagnostic and therapeutic complexities.<sup>22-24</sup> Some of these differences with other studies may be related to differences in the sample of healthcare professionals, or to differences in the extensiveness of the qualitative approach. Furthermore, it might be the case that the UK, with the Quality and Outcomes Framework, as well as the US have a stronger emphasis on adherence to disease-oriented guidelines than the Netherlands. Doctors may perceive fewer options to display or prioritise patient-centredness as this tendency increases. It urges us to assess which treatment strategies are effective and efficient for patients with multimorbidity specifically.

#### **Implications for future research**

The current findings show that GPs' main objective in multimorbidity management is patient-centredness. Since such an approach seems appropriate, but has not arisen earlier, it should be investigated whether a similar study design in a different setting would result in similar findings. It is not yet known to what extent these findings are related to specific primary care professions, such as GPs, or the [Dutch] primary care context. Furthermore, investigating professionals' actual behaviour in multimorbidity management is among the main points of action to be employed in the nearby future. The current findings can serve as a starting point in this respect.

It is time to evolve expertise and develop best practice in multimorbidity management. Generalists in primary care are perfectly suited to start such a movement.

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