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General practitioners' considerations of and experiences with multimorbidity patients: A qualitative study

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Abstract

Introduction: General practitioners' management of multimorbid patients is mostly described as a burden, although it is also indicated that fundamental characteristics of general practice are well-suited to accommodate appropriate management of multimorbidity. However, little is known about actual practices among general practitioners. This study explores general practitioners' management of their multimorbid patients.

Methods: A qualitative methodological design using participant observation and interviews. Interpretive description was used as the analytical framework. The study took place in a provincial town in Denmark. Three general practices with a total of 12 general practitioners participated.

Results: 'Multimorbidity' as general terminology does not reflect the practice of the general practitioners. Their approach is based on the functional capacity of individual patients. The heterogeneity of the group was classified into three categories determining the general practitioners' approach: the well-functioning patients, the surprising patients and the fragile patients. Three core characteristics were identified as pivotal for the general practitioners' approach: holistic view of the patient's situation, patient-centred focus and coordinator and facilitator. These are fundamental characteristics of general practice, but become especially significant because they accommodate the complexity and heterogeneity of multimorbid patients.

Discussion: This study expands the subject field by exploring the general practitioners' actual practices, thereby providing new perspectives into features that support appropriate management of multimorbid patients. General practitioners balance administrative and clinical regulations in their considerations of accommodating the heterogeneity and complexity of multimorbid patients. This suggests that better possibilities must be provided to realize the fundamental characteristics of general practice to support their management of multimorbid patients.

Keywords

General practitioners, multimorbidity, qualitative research, general practice, primary health care

Introduction

Managing patients with multimorbidity is a daily task for general practitioners (GPs). Research shows that patients with multimorbidity make up a substantial part of consultations in general practice: from one third to more than half, depending on the definition of multimorbidity, the setting and the methodology used.[1,2] Patients with multimorbidity also have higher consultation rates,[1,3] and studies demonstrate that they entail heavier workloads and greater time consumption among the GPs.[4–6] A systematic review identified four areas where the GPs experienced difficulties in caring for patients with multimorbidity: disorganized and fragmented care, inadequate disease specific guidelines, challenges in delivering patient-centred care and barriers to shared decision-making.[7] Similarly, several studies demonstrate that GPs experience organizational barriers to the appropriate management of multimorbidity, e.g. rigid frameworks for consultations, which challenges the prioritization of patients' multiple medical and personal needs,[4,5,8,9] or cooperation with

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other parts of the health-care sector.[4,10] Other studies emphasize clinical issues that pose problems, e.g. conflicting clinical recommendations related to the complexities presented by multimorbidity[11] or polypharmacy.[7–9,12] Research also shows the complexity entailed by multimorbidity itself, e.g. changing priorities over time or how the combination of physical, mental and social components add to the complexity[4,5,12] – an 'ongoing struggle.'[13]

Existing studies generally characterize GPs' management of patients with multimorbidity as a burden and point out barriers to the appropriate management of multimorbidity. Still, Søndergaard mentions a propensity to focus study questions on problems that may restrict attention from strengths and solutions.[5] A few studies note that the fundamental characteristics of general practice provide tools that are well-suited for managing multimorbidity[14] or indicate that generalist GP skills accommodate the appropriate management of multimorbidity.[15,16] However, little evidence supports this, and a study recommends research into GPs' actual conduct towards patients with multimorbidity.[10] To fulfil this need, the aim of the present study was to explore GPs' considerations of and experiences with the management of patients with multimorbidity. The following research questions guided the study: How do general practitioners experience and perceive their work with multimorbid patients? How do general practitioners manage multimorbid patients, and what are their incentives for decisions and actions in relation to multimorbid patients?

Methods

To explore GPs' considerations and experiences, a qualitative methodological approach was applied using participant observation, interviews and a focus group interview to generate data.

Setting and participants

The present study was carried out in a provincial town in Denmark. A local governmental practice coordinator/supervisor for GPs pointed out potential participants and provided information about the study. Five general practices were invited by letter and telephone to participate in the study. The practices were also offered a short visit by the researcher to receive information about the study. Two practices (one shared and one single-owned practice) refused to participate, and the reason given was they felt it too time consuming. Three general practices – two shared and one singled-owned practice – with a total of 12 GPs agreed to participate. Of these, eight were women and four were men, aged between 35 and 55 years old. Nurses, health assistants and secretaries working in the clinics were part of the study, but the research project was accomplished from the GPs' perspectives.

Participant observation

The study was initiated by participant observation. The aim was to gain insight into the GPs' actual practices regarding their patients with multimorbidity.[17] Apart from providing empirical material, the participant observation study served to qualify the formulation of the interview guide. An observation guide based on existing empirical knowledge was formulated to guide the research. The researcher (LØ) spent approximately two weeks in each of the included general practices (until satisfactory data saturation appeared) and took part in all patient consultations (whether patients with multimorbidity or not), joining the GPs throughout their working days, including home visits and phone consultations. Informal talks with the GPs took place before and after each consultation, during breaks and at other possible moments. Supplementary data collection was conducted during patient consultations with nurses and health assistants and, to a minor extent, observation in waiting rooms, including informal talks with the secretaries. The GPs introduced the researcher to the patients and informed them about the study, emphasizing that the focus of the observation was the GP, not the patient. Detailed field notes were written during and after each observation session.

Interviews

Individual interviews with the participating GPs served to gain insight into their views on multimorbid patients and their own practices towards these patients.[17] The interviews were based on the observations and were scheduled in continuation of the observations to minimize recall bias. The interviews were semi-structured, and an interview guide based on data from the observation sessions and existing knowledge was used. The interviews were conducted (by LØ) in the practices after opening hours; they lasted approximately 1 h and were recorded digitally and transcribed verbatim.

Focus group interview

A focus group interview was conducted (by LØ and NKN) with seven GPs who represented the general practices included in the study. The purpose of the group interview was to qualify the initial analysis, i.e. to validate the researchers' interpretations of findings from the participant observation and individual interviews. Moreover, it provided an opportunity to ask the GPs to prioritize the findings with regard to

importance. Focus group interviews are suitable to accommodate such purposes because the discussions between participants stimulate reflections and generate data on a relatively broad level.[18] A thematic interview guide with open-ended questions based on a preliminary analysis of other data guided the focus group interview. Small tasks to motivate the discussions were introduced. The focus group interview took place in one of the included practices; it lasted approximately 2½ h and was recorded digitally and transcribed verbatim. See Table 1 for an overview of the data.

Analysis

Analysis followed an inductive process based on interpretive description.[19] It included the following steps: (1) a thorough reading of the transcribed data and initial coding discussions, (2) thematic coding, (3) condensation and (4) critical interpretation and synthesis.[6] Thus, field notes and interview transcriptions were read by all authors, and initial themes were generated, tested and discussed. Final themes were agreed upon. Data were coded by all authors, followed by condensation, critical interpretation and synthesis. NVivo 11.0 QSR software was used in the handling of the data. The main themes relevant for this paper were (1) the GPs' practice/management of patients with multimorbidity, (2) the GPs' considerations of multimorbidity and (3) the GPs' perceptions/considerations of their roles and duties towards patients with multimorbidity.

Ethics

The study has been registered and approved by the Danish Data Protection Agency, Central Denmark Region's legal office [case number 1–16-02–48-17]. Danish legislation requires no official ethical approval for studies not involving examinations of human or biological material (National Committee on Health Research Ethics). The study purpose and management of data were explained to all participants orally and in writing. The participants provided verbal informed consent. The participants have been anonymized and names mentioned with the quotes are fictive for the

Table 1. Data overview.

Participant observation		

General practice A:
Single-owned practice
• 1 GP:
  ○ Harry
1 nurse/secretary
	General practice B:
	Shared practice
	• 4 GPs:
	  ○ John
	  ○ Elisabeth
	  ○ Marlin
	  ○ Kathy
	• 1 nurse
	• 1 health assistant
	• 1 secretary
		General practice C:
		Shared practice
		• 7 GPs:
		  ○ Michael
		  ○ Mattis
		  ○ Rose
		  ○ Helen
		  ○ Christina
		  ○ Marie (enrolled in training as GP)
		  ○ Susan (enrolled in training as GP)
		• 3 nurses
		• 2 secretaries

Individual interviews		
General practice A • GP Harry	*General practice B* • GP John • GP Elisabeth • GP Marlin • GP Kathy	*General practice C* • GP Michael • GP Mattis • GP Rose • GP Helen • GP Christina
Focus group interview		
7 GPs from the three general practices: • Harry • John • Michael • Mattis • Elisabeth • Marlin • Helen		

GP: general practitioner.

participants as well as for patients and cases mentioned. A reference system linking participants with their pseudonym was generated. The GPs received a modest fee for their participation because the study took place during their work hours.

Results

The presentation of the results is structured in two sections: first, we demonstrate the GPs' considerations of and experiences with patients with multimorbidity, and second, we show how GPs experience their roles and duties and what significance this has in supporting the needs of multimorbid patients. Initially, a portrait of an ordinary workday in general practice is presented to illustrate the GPs' everyday work, which constitutes the context for management of patients with multimorbidity (see Table 2). As these field notes (Table 2) illustrate, patients with multimorbidity represent a daily task among other types of patients and work duties. Next, we explore the GPs' considerations of this group of patients.

Multimorbidity or multiple ailments?

For the GPs, the term 'multimorbidity' functions more as a theoretical concept than practice-relevant terminology. Conceptually, the GPs recognized 'multimorbidity' since the term targets a patient group that takes up a substantial part of their practice, but they did not find it useful for their daily practice. Moreover, GPs experience broad heterogeneity within the group, which seems more important to their practice. The scope of patients with multimorbidity who the GPs meet in their practice can be condensed into three categories: well-functioning patients with multimorbidity, surprising patients with multimorbidity and fragile, poor-functioning patients with multimorbidity. Table 3 illustrates these categories, exemplified via field notes from observations of consultations.

According to the GPs, patients like Dan (well-functioning patient, Table 3) represent the majority. This category of multimorbid patients is characterized by being socioeconomically advantaged, and/or having a solid social network and/or being well educated. According to the GPs, these characteristics support the patients' capability for a proper understanding of their diseases and for undertaking self-care. One of the GPs says:

> People like Dan, I see them at check-up consultations but otherwise not. They live with their diseases and are fairly ok. They attend several check-ups a year, but mentally speaking, they do not pose a strong presence. They understand the risk factors, you see, and their proceedings are sensible. If there are minor things, then we adjust, and we make an appointment for the next check-up. (GP Elisabeth)

Leila (surprising patient, Table 3) represents a category of multimorbid patients who are scarred by their diseases and socioeconomic disadvantaged, which merge and complicate their disease course. However, as one of the GPs says:

> Well, Leila, she is not a lightweight, but still, she managed to achieve considerable weight loss. She seems to

Table 2. Field note: An ordinary day in general practice.

As usual, Michael's work day starts with phone consultations. There is a constant line during the allotted half-hour. Approximately 15 patients get through with many different requests: cough or fever, children's symptoms, pain, worrying symptoms, prescription renewals. Michael completes some of the patients rather quickly, but with others, he spends time asking for more detailed symptom descriptions, and asks some of the patients to meet for further diagnosis. Finishing the telephone consultations, his time is overrun, and Michael hurries to the first consultation of the day while telling me that the patient suffers from several chronic diseases, and that he knows her well. Today, the request concerns an acute problem: her ankle hurts after the latest of several orthopaedic surgeries. Michael takes the time to ask to her well-being, and it appears that she is feeling sad, expressing that her life in general is not going well. Michael advises her not to strain her ankle and suggests that she increase her antidepressant medicine. He schedules a new follow-up consultation while renewing the painkiller prescription. The following three patients attend the practice for prescribed check-ups for their chronic diseases. Two of the consultations drag on because issues other than the planned check-ups of hypertension and diabetes, respectively, have a strong presence: one of the patients seems depressive and the other is worried about her husband developing dementia. The third consultation proceeds as planned – the patient feels fine, the tests show that the hypertension is well regulated, and the medicine evaluation proceeds without a problem. After a short break, the rest of the day continues with patients; some of them suffer from chronic diseases although they might present acute problems; a few are parents presenting children with ear pain or an infected wound; a pregnancy examination and a therapy appointment. During the afternoon, Michael also makes two home visits: one to an elderly woman severely marked by several chronic diseases, and the other to a young man who suffers from Asperger's syndrome and has recently been diagnosed with primary lateral sclerosis. Back again, Michael arranges a patient referral he missed earlier regarding one of his well-known arthritis patients who has an elevated white blood cell count, which Michael cannot explain. Michael ends his workday with a brief meeting with his colleagues, discussing the appointment of a new nurse in the practice.

(Excerpts from field notes, 2 May 2017)

Table 3. Field notes: Case description and categories of patients with multimorbidity.

The *well-functioning patients* with multimorbidity

Elisabeth [the GP] *tells me that the next patient, Dan, has an appointment regarding the annual diabetes check-up, and also that his cholesterol level is far too high. Dan enters. He appears to be an overweight middle-aged man. Elisabeth initiates the consultation by commending him: Dan has lost several kilos since she last saw him. Elisabeth further says that the tests that were done a few days ago show that his diseases are fairly well-regulated according to the guidelines, except for a minor issue with a bit of an unbalanced salt level. Elisabeth explains that it might be an adverse effect, so they decide to reduce one of Dan's medicaments. Elisabeth then asks him if he takes care of appointments at the eye specialist and the dentist, and also if he is attentive to caring for his feet. Dan says that he does and explains that he has recently visited his podiatrist. Ending the consultation, Elisabeth renews some prescriptions, they make a new appointment and Dan leaves. Afterwards, Elisabeth says that Dan is doing well because he has a proper understanding of his diseases. She tells me that he has a supportive family, a job, and that he is motivated to change his habits to take proper care of himself.*

(Excerpts from field notes)

The *surprising patients* with multimorbidity

Leila [the patient*] attends the consultation due to the mandatory check-up for an elevated cholesterol level. John* [the GP] *tells her that the test results are fine and the cholesterol level is acceptable. This also appears to be the case for her other chronic diseases (raised blood pressure, diabetes). John then asks how she is doing; he specifically asks about her psychological well-being and her pain – it appears she is suffering from generalized pain. Leila says she is doing fine, although she misses her job in a canteen, which she had to quit because of muscle pain. After getting her prescriptions renewed, she leaves the consultation, and John turns to me, saying that he is pleasantly surprised that Leila is doing well. I ask what he means, and he explains that Leila has had so many struggles in her life – including several chronic diseases and severe depression last winter, and that her marriage is not functioning very well, which he talks with her about from time to time. But she has lost weight, she exercises, and she seems to be handling her situation fairly well. John says that he does not have to keep an eye on her anymore.*

(Excerpts from field notes)

The *fragile, poor-functioning patients* with multimorbidity

Per, an elderly man, attends the consultation for a diabetes check-up. Christina [*the GP*] *explains the results of his tests. Among other things, his blood glucose is too high, and Christina discusses with him how to reduce it. She tries to motivate him to attend a municipal rehabilitation course for diabetics, but Per avoids it by saying it is not for people like him. Christina says that according to the test, his cholesterol level and blood pressure are acceptable, but still, diabetes and COPD are not well regulated. She tells him she is concerned about this and that quitting smoking would reduce progression of the COPD. Per answers that he had tried to quit smoking, but then he gained weight, which he was not interested in; but now he has cut back and only smokes outside. It appears that he had heart surgery some years ago, and also takes painkillers daily, which Christina would like him to reduce. Christina ends the consultation by scheduling a new check-up. Per leaves, and Christina tells me that he is a patient with a strong presence. She sees him often because of his diseases and related symptoms, but she also makes continuous appointments because she is worried about the progression of his diseases and how best to help him.*

(Excerpts from field notes)

GP: general practitioner; COPD: chronic obstructive pulmonary disease.

> make choices regarding her life situation and she is doing fairly well. I am very pleased every time my prejudices are disproven. She is an example, which means that the next time a person like her attends, then I will think, well, it is possible, let's try. Sometimes, against all odds, people are able to make an effort to take better care of themselves; 15 years in practice has taught me that I cannot predict it. (GP John)

As this quote illustrates, GPs expect this category of patients to be challenging because of the complexity of their life situations, but against all odds, they manage to take care of themselves. The GPs attend to this group of multimorbid patients rather often for check-ups and general support, but mentally speaking, they do not display a strong presence because they handle their diseases quite well.

Per (fragile, poor-functioning patient, Table 3) is an example of a multimorbid patient who, according to the GPs, accounts for the minority, but nevertheless, has the strongest presence, both literally and mentally. GPs often attend to such patients for planned as well as emergency consultations, and they know them and often their families quite well. The GPs describe this category of patients as socioeconomically disadvantaged and having psychological problems and/or personal and social challenges that may add to the complexity of their disease. According to the GPs, this involves difficulties regarding their disease insight and it makes it difficult for them to take proper care of themselves. As one of the GPs says:

> Mentally speaking, patients like Per have a strong presence, I have to say that. It is only getting worse if he doesn't grasp that I am limited in what I can do, if he doesn't do something himself. I've seen two of these patients out of the approximately 25 patients I attended to today, but they are the ones I bear in mind. It's not that I see them as troublesome, but it's like... somehow frustrating. I make no progress and it is difficult to find out how I can help to make things better. (GP Christina)

The GPs' perception of their multimorbid patients is not related to the number or severity of diseases, but rather to the functional capacity and self-care ability of individual patients. Despite the patients' having several chronic diseases in common, each individual is marked by their specific situation, which forms the GPs' focal approach. Consequently, in their approaches, the GPs stress a need to differentiate between patients. One of the GPs summarizes the GPs' perception as follows:

> Well, a different approach than 'multichronic' could be: who is in a position to carry the diseases and who is not? Some of these people, I would call them 'chronicified'. He [a patient who just left the consultation] has eight to ten diseases, but he is not 'chronicified' – his life is not his diseases, he carries his diseases so to speak, but others – it's behind all their cells, it's a way of behaviour. So the question is – how can we lift the curse? (GP Helen)

In continuation hereof, the GPs expressed that rather than draining, they find their work with patients with multimorbidity professionally interesting and personally rewarding because of the heterogeneity of this group of patients. The GPs presented a perception of multimorbid patients as a heterogeneous group with profound variation in disease courses and socioeconomic and personal characteristics, which exert a major influence on their differing needs. This is addressed in relation to the GPs' perceptions of their roles and duties regarding multimorbid patients.

Managing patients' with multimorbidity

Three main qualities characterizing the GPs' management of patients with multimorbidity are introduced: a holistic approach, a patient-centred approach and a coordinator and facilitator for the patients' disease courses. As already indicated, generally speaking, a main challenge for GPs is to find ways to support patients in '*carrying the diseases*' rather than dealing with their multimorbidity. According to the GPs, this especially concerns poor-functioning, fragile patients. One of the GPs voices it like this:

> Some patients are in fairly good health despite having several chronic diseases. We could open a clinic at the golf course to attend to these people! Checking their health several times a year is time-consuming, and I am convinced we could gain more in terms of better health if we could target our efforts toward multimorbid patients in greater need. (GP Mattis)

This quote shows that the GPs' considerations regarding their roles and duties towards patients with multimorbidity are torn between administrative and clinical standard regulations and consideration for the patients' individual and current needs. For example, medical guidelines and administrative regulations form a basis for diagnosing and treating patients. However, according to the GPs, generalized sets of rules are not the only thing considered, and medically well-regulated patients are not necessarily the only goal. As one of the GPs says:

> Sometimes, when a patient is well-regulated, I am very satisfied. But in other cases, I drop this ideal because of some other issues. For instance, I have this patient who has diabetes and lives alone. It is very important for him to be able to drive. For him, it would be a catastrophe if he lost his driving license, which he might do if his blood sugar is too low and he has insulin shock. Therefore, I treat him so that his blood sugar is quite high, which is not optimal for his health, but yet the best possible scenario in this case. (GP Michael)

As this quote illustrates, the GPs apply a holistic approach in their treatment decisions by considering the patients' situation as a whole and making an effort to unite guidelines and regulations with the patients' perspectives. An important role is thus attention to the patient as 'a whole person,' i.e. not merely their symptoms and clinical issues, but also their social and personal circumstances as well as possible relations between these aspects. As a result, the GPs' perceptions of their tasks towards multimorbid patients are mainly aimed at supporting – medically and otherwise – the patients to be able to do what they prefer in their everyday life, rather than optimal regulation/treatment of their diseases. Thus, family history, social networks and/or psychological problems are matters that often influence their treatment decisions. Field notes from one of the consultations illustrate this:

> A patient enters the consultation room. She has applied for consultation because of a painful foot and related mobility problems. Harry, the GP, asks how she is and how things are going at home. He knows of the family and he attended to the husband the day before. The patient starts telling him about her marital problems: it's not going well, she says. Harry also asks about the patient's teenage son, and the patient explains that her son is better than usual because he's attending a new school. They talk for a while about the family, and Harry offers to talk to the husband about their problems, too. Harry then examines her weak foot, suggests the use of sports tape and refers her for an X-ray. After that, Harry asks how it is going with the diabetes, and the patient explains that she cannot deal with it because of family problems. They talk about her husband

> again, and when ending the consultation, they agree that the patient should come back next week for more discussion and diabetes control. (Excerpts from field notes)

This case exemplifies how a precondition to approach the patient as a 'whole person' is knowledge about the patient. During fieldwork, it was clearly revealed that the GPs take their time (if relevant) to talk to the patients about things other than diseases-specific issues, and the knowledge gained is used in the process of diagnosis and treatment decisions. The GPs thus identify and treat acute complaints in a historical, contextual perspective. This holistic approach is described as follows by one of the GPs:

> My role is like a detective, and diagnosing is like a star game. There is a lot of information, including symptoms, history of the patient and my knowledge of the patient as a person. From that perspective, I have to decide and prioritize what is most important and acute to deal with. I verify, eliminate, open and close doors and follow a track. When that track closes, I have to go back and start again on another track. (Excerpts from field notes)

This statement demonstrates how the GPs' extensive knowledge of the patients is used not only for diagnosing and choosing treatment but also for the predominant activity of prioritizing in the multimorbid patients' numerous problems. Typically, the patients have planned appointments for regular check-ups of their chronic diseases, but in addition, they often present acute problems. One of the GPs reflects on a consultation as follows:

> She [the patient] didn't care about her diabetes, she was mostly concerned about what was going on at home, which, as a matter of fact, had nothing to do with the subject of the consultation [diabetes check-up]. But in that situation, it's all about being able to listen. Is it a waste of time? After all, I did have a look at her diabetes, and hopefully helped her a bit regarding her worries about her husband. Then we have to take care of her other diseases another day when she can handle it. (GP Michael)

A challenge towards the holistic approach is, e.g. the strict regulations of consultation frames. Because of consultation time constraints, there is limited time to deal with the most acute and important problem(s), and the GPs balance many issues against each other and prioritize between them. Moreover, the GPs assess some patients to be unable to take care of several things simultaneously, especially if it involves lifestyle changes or other initiatives where the patients have to make a personal effort. The consultations are thus often characterized by balancing planned and acute/unforeseen issues, and in the process of prioritizing, the GPs weigh various considerations, including medical and administrative regulations, as well as the physical, psychological and social conditions of the patients.

This process of prioritizing is sometimes carried out explicitly and in cooperation with the patients, and at other times, more unspoken or even unnoticed. Both explicit and implicit prioritization happens, e.g. when the GPs have to decide whether a patient suffering from an acute health problem should be admitted or if the patient, for various reasons (health, social and/or personal), would rather benefit from staying at home. In all cases, a patient-centred approach is predominant, and according to the GPs, they strive for a good relationship because it experiences are a pivotal precondition for their possibility to succeed with appropriate treatment, even though it sometimes takes extra time or involves compromising medical guidelines. For example, at a consultation with a multimorbid patient, the GP decided to conduct an extra blood test even though it was not clinically relevant. She did so because the patient strongly demanded this and the GP wanted to avoid the patient becoming annoyed, which would risk spoiling their relation and making the patient stay away. One of the GPs explained the importance of a good relationship as follows:

> The most important thing is to follow the patients, hold their hands, sense when they are motivated for change and then find the best way in, for instance, with humour. I have this patient, Paul, who is sometimes ready for change because he is in love or whatever, and then he starts trying to lose weight, but then later, he will give up again. Then I'll bring it up later on when he is ready – you have to keep on fighting. (GP Christina)

The stated intention, '*to follow the patients*,' is not only about incorporating patients' perspectives and trying to motivate them to follow a healthy lifestyle, but also involves the very practical task of assisting and monitoring their care courses in all parts of healthcare services. One of the GPs stated:

> I walk along with the patients! I do not always diagnose and treat them – sometimes it does not make sense; but I am always there, ready for a talk or whatever. It is different with the specialists; they have clearly defined issues that they are supposed to deal with. There are specialists and there are GPs: as a GP, I am the one to bind the loops for the patient. (GP Elisabeth)

Thus, according to the GPs, they have important roles as coordinators and facilitators of multimorbid patients' continuous care in all parts of the healthcare system. The GPs express that they have a central role in the care of patients with multimorbidity, because due to their often-long history with the patient, they have a unique overview of the patient's general situation, which the specialists are not able to practice because of different roles and functions in the healthcare system. Part of the facilitating function is also outreaching to (some of) the patients themselves, e.g. the GPs make non-scheduled phone calls to patients who unexpectedly stay away from planned consultations or behave in an unexpected way, or to patients who are unusually quiet in regard to their contact with the GPs or could benefit from a call in other ways. During an observation session, one of the GPs explained:

> The person I just called – I know she is having a difficult time these days, and she doesn't usually stay away from appointments, so in such situations, I might call to check if I should be aware of something. Thus, in case I sense there could be a need, I do that. For example, if somebody had contacted the duty doctor and a treatment was initiated, it might be a trivial urinary tract infection, but it can turn out to be complicated for weak elderly patients; then I just want to check if everything is ok. (Excerpts from field notes, GP Mattis)

As shown, the GPs do not experience multimorbidity in itself to cause challenges. What poses difficulties, or is experienced as frustrating, are rather the complexities of some of the patients, which potentially leave a sense of 'paralysis of action.' The GP Michael said:

> If people are very sick and may be dying, well, that's part of my job; I don't lie sleepless due to that. But I often wonder if I have missed possibilities to do something, and some of the patients with multimorbidity are a strong presence in such situations. It is really tough if I cannot do anything to help.

In summary, the fundamental characteristics of general practice seem appropriate to embed multimorbid patients in general practice, yet in that process the GPs balance administrative and clinical regulations and accommodate the heterogeneous and complex need of patients with multimorbidity.

Discussion

The results of this study show that multimorbidity as general terminology does not reflect the daily practice of GPs. Rather, their approach is based on the functional capacity and self-care ability of individual patients. The heterogeneity of the group was summed up into three categories that determined the GPs' approach: (1) *well-functioning patients* with multimorbidity, (2) *surprising patients* with multimorbidity and (3) *fragile, poor-functioning patients* with multimorbidity. The study demonstrated that GPs find their work with multimorbid patients professionally interesting and personally rewarding. Overall, assisting the patients in carrying their diseases was found to be central to the GPs' perception of their roles and duties towards these patients. Three core characteristics were identified as essential for their approach: first, a holistic approach, meaning an effort to take the patients' somatic, psychological, social and personal issues as a whole into account in diagnosing and treating their diseases; second, a patient-centred approach, which was not always explicit, but was expressed by the fact that the individual patients' wishes for his/her everyday life to be in balance for handling their disease were central for decision-making about treatment; and third, to be a coordinator and facilitator for the patients' disease courses. Having long-term knowledge about the patients, having an overview of the patient's overall situation and disease history and maintaining a good relationship with patients formed preconditions for performing these tasks.

The present study identified some findings similar to that in previous research, e.g. how psychological and social problems add to the complexity of multimorbidity, resulting in complex clinical decision-making, prioritizing[4,5,12,13] and/or poly-pharmacy.[4,8,12,13] Also, the study revealed how the complexity of multimorbidity in itself give rise to fragmented care[4,5,7,10] and the inadequacy of single disease guidelines.[5,9,11] However, whereas previous studies have focused on challenges and barriers in the management of patients with multimorbidity, the present study adds to existing knowledge by demonstrating that despite such difficulties, the GPs experience their work with patients with multimorbidity as professionally and personally rewarding. Interestingly, the predominant reason for this experience is precisely the complexity and heterogeneity shown by these patients.

A few studies have mentioned GPs' perspectives on the concept of multimorbidity, e.g. as 'simple' medical problems complicated by social and psychological issues,[13] by suggesting that multimorbid patients differ and that some of them live relatively unproblematic with their diseases[7] or by suggesting a functional rather than a solely disease-centred approach to accommodate the complexities met by GPs among these patients.[20,21] Such considerations correspond with the present study, which finds that 'multimorbidity' is not a category used in the daily practice of the GPs. Rather, the GPs' approach is based on individual

patients' functional ability associated with their needs and wishes for everyday life before the number, combination or clinical severity of their conditions.

A key strength of the present study is the methodological approach. The use of participant observation allowed for extensive and in-depth knowledge of what the GPs actually do and how they, in their daily practice, approach their patients rather than solely what they say about their doings and experiences. The resulting 'thick' descriptions provided detailed knowledge about the practice of GPs, which interviews, the methodological approach used in most other studies within this area, do not.

However, the general practices included might be 'best case' examples. The study participants had to accept the researcher as part of their workday and allow insight into what could be perceived as the private sphere. Thus it cannot be excluded that they were particularly well-functioning practices taking a special interest in patients with multimorbidity. This bias was sought to be minimized by asking the government practice coordinator who assisted in suggesting potential study participants to take some broadness and variation regarding the suggested practices into account. COREQ (Consolidated criteria for Reporting Qualitative research) Checklist[22] was used to provide a quality assessment of the reporting of the methodology. In most of the items, our study is of good quality. However, the participants were not invited to comment on the interview transcript because we conducted a focus group interview with the aim of validating the findings.

The study suggests that the fundamental tools and characteristics of general practice, such as the possibility for long-term knowledge of the patients and their disease histories and a holistic and person-centred approach, are well-suited to meet the complex and varied needs of patients with multimorbidity. These characteristics generally come into play most significantly towards fragile and poor-functioning patients, whether suffering from multimorbidity or not. The study results thus point to the need to clarify the medical terminology of multimorbidity and to differentiate between patients, allowing vulnerability factors to have a central position in diagnosis and treatment decisions. The GPs' possibilities of realizing the fundamental tools of general practice are relevant to accommodate the heterogeneity and scope of complexity among this group of patients. Strengthening the options to reveal these fundamental characteristics could potentially avert some of the well-known barriers posed by administrative and clinical standard regulations in managing multimorbidity. The present study demonstrates that GPs make an effort to balance recognized barriers when trying to make things work for individual patients, e.g. by adopting a proactive approach towards the patients most in need; by including factors other than disease-specific issues in decisions about treatment; by adjusting the planned content of consultations; or by prioritizing treatment regimens to meet the patients' actual needs. The continuity and familiarity of the relation between the GP and the patient are important preconditions which, according to the GPs, make general practice an appropriate anchor in patients with multimorbidity.

The findings of this study suggest that developing the GPs' possibilities to realize the fundamental characteristics and tools of general practice support their possibilities to better accommodate the needs of patients with multimorbidity. Since general practice possesses a central role in the management of multimorbid patients, the detailed knowledge about their perspectives provided in this study will benefit the patients by suggesting quality development of the health services provided to the patients. For example, better options in regard to priorities between patients include the following: targeting particular efforts towards frail, poor-functioning patients rather than providing a uniform allocation of resources among patients with multimorbidity; strengthening possibilities for proactive approaches; developing more flexible consultation frames; and improving an explicit patient-centred approach. Furthermore, future research is suggested to study cooperation between GPs and hospital specialists, since the GPs' possibilities for appropriate management of multimorbid patients depend on well-functioning cooperation due to the complex nature of multimorbidity. Finally, to comply with the weaknesses of the present study, similar studies should be conducted in other settings.

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References

1. Salisbury C, Johnson L, Purdy S, et al. Epidemiology and impact of multimorbidity in primary care: a retrospective cohort study. *Br J Gen Pract* 2011; 61: e12–e21.
2. Fortin M, Stewart M, Poitras ME, et al. A systematic review of prevalence studies on multimorbidity: toward a more uniform methodology. *Ann Fam Med* 2012; 10: 142–151.
3. Barnett K, Mercer SW, Norbury M, et al. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. *Lancet* 2012; 380: 37–43.
4. Bower P, Macdonald W, Harkness E, et al. Multimorbidity, service organization and clinical decision making in primary care: a qualitative study. *Fam Pract* 2011; 28: 579–587.
5. Søndergaard E, Willadsen TG, Guassora AD, et al. Problems and challenges in relation to the treatment of patients with multimorbidity: general practitioners' views and attitudes. *Scand J Prim Health Care* 2015; 33: 121–126.
6. Smith SM, Soubhi H, Fortin M, et al. Managing patients with multimorbidity: systematic review of interventions in primary care and community settings. *BMJ* 2012; 345: e5205.
7. Sinnott C, Mc Hugh S, Browne J, et al. GPs' perspectives on the management of patients with multimorbidity: systematic review and synthesis of qualitative research. *BMJ Open* 2013; 3: e003610.
8. Smith SM, O'Kelly S and O'Dowd T. GPs' and pharmacists' experiences of managing multimorbidity: a Pandora's box. *Br J Gen Pract* 2010; 60: e285–e294.
9. Lewis C, Wallace E, Kyne L, et al. Training doctors to manage patients with multimorbidity: a systematic review. *J Comorb* 2016; 6: 85–94.
10. Luijks HD, Loeffen MJ, Lagro-Janssen AL, et al. GPs' considerations in multimorbidity management: a qualitative study. *Br J Gen Pract* 2012; 62: e503–e510.
11. Sinnott C, Hugh SM, Boyce MB, et al. What to give the patient who has everything? A qualitative study of prescribing for multimorbidity in primary care. *Br J Gen Pract* 2015; 65: e184–e191.
12. Xu X, Mishra GD and Jones M. Evidence on multimorbidity from definition to intervention: an overview of systematic reviews. *Ageing Res Rev* 2017; 37: 53–68.
13. O'Brien R, Wyke S, Guthrie B, et al. An 'endless struggle': a qualitative study of general practitioners' and practice nurses' experiences of managing multimorbidity in socio-economically deprived areas of Scotland. *Chronic Illn* 2011; 7: 45–59.
14. Prazeres F and Santiago L. The knowledge, awareness, and practices of Portuguese general practitioners regarding multimorbidity and its management: qualitative perspectives from open-ended questions. *Int J Environ Res Public Health* 2016; 13: E1097.
15. Roland M and Paddison C. Better management of patients with multimorbidity. *BMJ* 2013; 346: f2510.
16. Luijks HD, Lagro-Janssen ALM and van Weel C. Multimorbidity and the primary healthcare perspective. *J Comorb* 2016; 6: 46–49.
17. Denzin NK and Lincoln YS. *The sage handbook of qualitative research*. 5th ed. Los Angeles, CA: SAGE, 2017.
18. Halkier B. *Fokusgrupper [focus groups]*. 3rd ed. Frederiksberg: Samfundslitteratur, 2016.
19. Thorne SE. *Interpretive description: qualitative research for applied practice*. 2nd ed. New York, NY: Routledge, 2016.
20. Le Reste JY, Nabbe P, Lazic D, et al. How do general practitioners recognize the definition of multimorbidity? A European qualitative study. *Eur J Gen Pract* 2016; 22: 159–168.
21. Willadsen TG, Bebe A, Køster-Rasmussen R, et al. The role of diseases, risk factors and symptoms in the definition of multimorbidity – a systematic review. *Scand J Prim Health Care* 2016; 34: 112–121.
22. Tong A, Sainsbury P and Craig J. Consolidating criteria for reporting qualitative research (COREQ): a 32-item checklist for interview and focus groups. *Int J Quality Health Care* 2007; 19: 349–357.