

# BMJ Open Promoting physical health among people with enduring mental illness: a qualitative study of healthcare providers' perspectives

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## ABSTRACT

**Background** People with enduring mental illness (EMI) have higher morbidity and mortality from chronic diseases than the general population, and this results in a significantly reduced relative life expectancy—accounted for primarily by physical illness. This gap may be partly influenced by the reduced likelihood of access to and uptake of regular physical health screening.

**Aim** To establish Irish service providers' perspectives regarding the care of the physical health of people with EMI in an effort to inform future service developments aimed at improving the physical health of people with EMI.

**Design and setting** Qualitative study of healthcare providers—general practitioners (GPs) and members of the community mental health teams—in Ireland.

**Participants** GPs and mental health service providers.

**Methods** Qualitative semi-structured interviews were conducted with 34 service providers. Thematic analysis was undertaken.

**Results** Participants considered that the physical health of people with EMI is not currently regularly addressed by the patient's GP or the mental health team. Factors associated with this include patient compliance with attendance, time constraints in consultations to adequately support patient self-management, communication difficulties with the patient and between primary and secondary care, and lack of clarity as to whose responsibility it is to ensure physical health is monitored. In participants' view, a barrier to improvement is the present funding approach.

**Conclusion** The evidence from this study has the potential to form the basis for innovation and change in service delivery for people with an EMI in Ireland and internationally, specifically in countries where it is not clear who has the overall responsibility to monitor the physical health of patients with EMI. This role requires time and regular contact, and both the organisation and the funding of the health system need to support it.

## INTRODUCTION

Enduring mental illnesses (EMIs) account for 62.5% of disability-adjusted life years (DALYs) caused by mental and substance use disorders.<sup>1</sup> People with EMI have a mortality rate two to three times higher than the general population.<sup>2</sup> This translates into a reduced

## Strengths and limitations of this study

- A key strength of this work is that it includes an in-depth assessment of a mix of health professionals' perspectives on the topic—semi-structured telephone interviews, conducted with 34 healthcare providers in four geolocations in Ireland.
- The main limitation is that data from only one country are included, but they are relevant to other countries which also do not have a clear policy regarding who is clinically responsible for monitoring the physical health of patients with enduring mental illness (EMI).
- Purposive sampling of a mix of care providers (general practitioners and members of the community mental health teams) involved in the care of patients with EMI and working in one of four geographical locations.
- Individual interviews were conducted to explore Irish service providers' perspectives regarding the care of the physical health of people with EMI giving an in-depth insight into their views.
- Thematic analysis was employed in order to identify common themes which may reduce the depth of understanding which can be claimed.

relative life expectancy of between 13 and 30 years.<sup>2</sup> This gap in mortality has widened, including in countries with developed health systems such as Sweden,<sup>3</sup> Finland<sup>4</sup> and Denmark.<sup>4</sup> It is estimated that 60% of this increase in mortality is caused by physical illness.<sup>2</sup> Among people with EMI, there is a higher prevalence of diabetes mellitus,<sup>5</sup> metabolic syndrome,<sup>6</sup> cardiovascular disease,<sup>7</sup> respiratory disease<sup>8</sup> and infectious disease.<sup>9</sup> Cancer morbidity rates are the same for people with EMI and the general population. However, there is evidence of increased cancer mortality rates for this group.<sup>10</sup>

There are five primary reasons for the disparities in physical health outcomes between the general population and those

with EMI: side effects of some psychiatric medications, increased rates of chronic disease risk factors, different healthcare utilisation patterns, lack of integration between primary and secondary services, and inequitable provision of healthcare.<sup>2 10–15</sup> Provision of physical healthcare for people with EMI is unequal despite their greater need.<sup>10 16–19</sup>

Rates of physical health monitoring in primary care are significantly lower for people with EMI despite consultation rates being much higher,<sup>20–23</sup> suggesting that diagnostic overshadowing plays a significant role. While monitoring of physical health measures and annual check-ups are recommended,<sup>24</sup> there is no agreement regarding who should be responsible for this and different approaches have been taken in different countries.<sup>24 25</sup> Ireland does not have a stated policy on who should take overall responsibility for the physical health of patients with EMI, and there are no incentives for this or for health promotion in the population in general.

This paper reports Irish service providers' perspectives on the care of the physical health of people with EMI in an effort to inform future service developments aimed at improving the physical health of people with EMI.

## METHODS

### Study design

The study consisted of semi-structured telephone interviews, conducted with 34 healthcare providers in four geolocations in Ireland. The focus of the study was on patients with EMI, which denotes patients with any of three conditions—schizophrenia, bipolar or (recurrent) depressive disorder.

### Participants

Participants were recruited through an online advertisement placed on the Irish College of General Practitioners' (ICGP) website and local healthcare staff notifications communicated via the local Health Services Executive offices, which included detailed information on the aim and structure of the project. The respondents were sampled purposively, considering their experiences in the involvement in care of patients with EMI. Purposive sampling aimed to capture a wide range of views and perspectives by ensuring a variation in healthcare providers (GPs and members of the community mental health (CMH) teams), geographical location of practices (Dublin, Cork, Galway and Limerick) and size of practices. Healthcare providers included GPs and members of the CMH teams. A total of 34 participants were interviewed; 20 GPs and 14 CMH team members. The CMH team cohort consisted of six psychiatrists, seven CMH nurses and one occupational therapist. All of the participants were provided with an additional information sheet and consent form prior to their participation in the study.

### Data collection and analysis

Individual interviews were conducted to explore Irish service providers' perspectives regarding the care of the physical health of people with EMI. An interview topic guide was developed and is included as an online supplemental file 1. A cyclical process was adopted giving the potential to adjust the topic guide during the data collection period; however, no changes were made to the initial topic guide. The topics covered included the physical health of patients with EMI, presentation and detection, support and management of patients with EMI, communication with patients with EMI and collaboration between service providers. Semi-structured telephone interviews are considered to be an effective method for qualitative data collection and are frequently applied in healthcare research.<sup>26 27</sup> Interview via telephone is seen to be beneficial with regard to the complexity of accessing health professionals due to the time constraints faced by them.<sup>26–28</sup> Although telephone interviews could have a number of limitations, including inability to observe body language and social cues, previous research has indicated that telephone interviews are an invaluable tool for wide geographical access,<sup>26 27</sup> which was the case in the present study.

Semi-structured interviews were conducted by three researchers, all experienced in qualitative methods but not topic experts. Prior to each interview, the researchers briefly explained the aim of the study and structure of the interview process to each of the participants, and they also asked for permission for the interview to be audio-recorded. The interviews lasted approximately 30–45 min, after which they were transcribed verbatim and anonymised at transcription. Thematic analysis<sup>29</sup> was employed in order to identify common themes. First, the transcripts were read and re-read in order to achieve data familiarisation, followed by line-by-line coding, where meaningful parts of texts were organised into codes. Two researchers were involved in reviewing the codes and assessing the commonalities and differences between the interviews. As a result of the comparative analysis between and within transcripts, two researchers labelled codes based on meaning and relationship between them into themes and subthemes, which were considered by the wider research team, and some amalgamation of themes occurred. This process contributed to increased reflexivity. Coding and thematic analysis were conducted manually without use of any computer software. The authors considered data saturation to have been reached and verified this through use of a cyclical process whereby analysis was undertaken throughout the data collection.

The Standards for Reporting Qualitative Research (SRQR) reporting guidelines were employed (the SRQR checklist is included as an online supplemental file 2).<sup>30</sup>

### Patient and public involvement

While there was public involvement from the outset and throughout the project through one member on the project steering group, there was no patient involvement

**Table 1** Description of the key themes and subthemes

Themes	Subthemes
Physical health issues of patients with EMI	<ul style="list-style-type: none"> <li>▶ Awareness of physical health issues of their patients with EMI</li> <li>▶ Reasons for poor physical health</li> <li>▶ Perspectives on patients' understanding of their own physical health</li> </ul>
Management of physical health of patients with EMI	<ul style="list-style-type: none"> <li>▶ Annual check-up</li> <li>▶ Practice level</li> </ul>
Communication about physical health of patients with EMI	<ul style="list-style-type: none"> <li>▶ With patients with EMI</li> <li>▶ Between healthcare providers</li> </ul>

EMI, enduring mental illness.

in these interviews as this paper focuses on service providers' perspectives.

## RESULTS

The main themes (table 1) that emerged from the analysis were as follows:

- ▶ Physical health issues of patients with EMI.
- ▶ Management of physical health of patients with EMI.
- ▶ Communication about physical health of patients with EMI.

### Physical health issues of patients with EMI

Participating healthcare providers referred to patients living with EMI being at greater risk of being diagnosed with a range of chronic conditions and affected by lifestyle risk factors. Due to the nature of their diagnosis as well as prolonged periods on prescribed medication, patients with EMI were seen to develop a range of conditions: *“physical health issues are very, very common; those such as obesity, hypertension, thyroid illness, cardiac and respiratory illness”* (CMHT04).

Many of the risk factors encountered by patients with EMI were seen to be as a result of both the impact of their health on their socioeconomic status and the impact of their socioeconomic status on their health.

“People who have enduring mental illness are usually unemployed. Better food usually costs more than unhealthy food”. (GP02)

“... because of the area I'm working in is a very high deprivation index so there's a lot of other factors as to why people have co-morbid physical health issues alongside their mental health problems...lifestyle, low education attainment, no real interest in self-care...” (CMHT03)

Despite patients' life circumstances and vulnerability to physical health issues, the healthcare providers considered that recognition of physical health problems by patients with EMI worked on a case-by-case basis, based on the severity of their illness. Some patients with EMI

were found to be similar to patients without a diagnosis of EMI in regard to their interest in their physical health.

“It depends on the degree or the severity of the illness on how much insight they have really. Some of them might manage quite well. There's such a spectrum. A lot of them just behave like any other patient, they attend whenever they are worried about their blood pressure or they have a pain in their back or leg or tummy”. (GP09)

However, a number of GPs and mental health professionals considered that their EMI patients' awareness of physical health was in the main very poor (GP14, GP19, GP20, CMHT07), stating that: *“...so a lot of the time they wouldn't be telling us that they are feeling unwell. They might be tired but attribute it to their mental illness”* (CMHT07). Patients with a diagnosis of bipolar disorder were perceived to be more capable of engaging in relation to their physical well-being. Patients whose conditions were being effectively managed by medication and therapy, and who had good support structures in place, were regarded as aware of some physical health issues and were able to address them during visits.

“... the patients with bipolar are probably better at attending and being aware of their physical health as well. I suppose the schizophrenic patients who are maybe more severe or have less support I think are not so good about coming for anything physical”. (GP09)

### Management of physical health of patients with EMI

#### Annual check-up

Annual physical health check-ups for patients with EMI were perceived by GPs and CMH team members to be an ideal practice (GP17, GP18, CMHT03). In two of the four geographical areas included, participants informed us that a comprehensive annual physical health check, in line with the National Institute for Health and Care Excellence (NICE) guidelines, was in place for all of their attending patients with EMI.

“Regularly. The consultant is very clued in with the NICE guidelines and from a nurse's point of view, we do annual health screening for all of our clients”. (CMHT03)

Nevertheless, healthcare providers considered that completing a comprehensive physical health check annually was not always possible due to severe resource and time constraints: *“because of resource issues, it wouldn't be feasible to do physical health checks on everyone”* (CMHT04). Time constraints in appointments were the most frequent issue for GPs when attempting to educate and encourage patients to focus on and monitor their physical health. GPs addressed the need for longer consultations for patients with EMI: *“I'd love to do an annual check and to have a dedicated half hour session every six months. But I don't have the time, I'm trying to see 35 or 40 patients a day in 10 or 15*



*minute slots so to try with something as complex as somebody with EMI who also may have co-morbid illnesses and polypharmacy, is by far the biggest problem I have*" (GP17).

As a result of the above constraints, the healthcare providers were conscious of monitoring as many of the criteria and parameters of a physical health check as possible during ad hoc appointments. These appointments commonly include blood, weight and blood pressure examinations (GP19, CMHT04), but there was reference by GPs to additional tests and interventions: *"I would do blood tests at least once a year, check their blood pressure, weight, talk with them about smoking, and try to do an ECG every three years. We do our best to provide advice, and give them leaflets, and refer them to dietitians"* (GP19).

### Practice level

Both GPs and CMH team participants agreed that the physical health of patients with EMI should generally be managed where possible in the primary care setting. Exceptions are made for patients who require treatment in the secondary care setting. CMH team participants expressed that they played a role in supporting their patients to access physical health checks, tests and treatments by either advising them or supporting them in person to visit their GP.

*"If we identify a problem, such as high cholesterol or a thyroid problem, we will often liaise directly with the GP by telephone or letter and ask the patient to go in to see their GP to see if they need medication... People really do need to see their GP"*. (CMHT04)

GPs stated that they felt comfortable managing the physical health of patients with EMI. However, they reported difficulties in managing their patients due to challenges related to adherence to advice and treatment, difficulties in communicating effectively, poor appointment attendance and an awareness that patients with EMI are less likely to seek care related to their physical health than patients who do not experience mental health issues. A lack of adherence among patients, with regard to treatment and possible lifestyle changes, was seen as one of the biggest challenges: *"compliance [with medication] is a big issue. Even if it's not that they are taking it all, it's that they don't take it regularly or as prescribed"* (CMHT03). Lack of adherence was associated with a lack of motivation, which was highlighted as common among patients with EMI as a result of their illness. The employment of motivational techniques during consultations was suggested, *"You need to adjust your expectations, and use motivational intervention techniques with them, and tell them how great they are doing"* (GP20). GPs reported that the focus of visits by those with EMI often veered away from physical health advice, education and risks. Both GPs and patients were often focused more on the mental health issues the patients were experiencing, repeat prescriptions for medications prescribed and tackling acute physical health issues.

*"...even the ones that have their mental health symptoms very much under control, they tend to focus on*

*the mental health symptoms and not so much the physical health symptoms"*. (GP02)

EMI patients' presentation to their GP for treatment was also found to be a common issue: *"...they [EMI patients] generally tend to be poor presenters"* (GP02) or *"not presenting and not being motivated to present at all"* (GP11). Follow-up with patients who miss appointments in general practice or who have been called in to access treatment for results can be problematic. GPs explained that they work on the basis that if contacted, it is at the patient's discretion whether they attend or not; although in some cases, the patient's partner or carer may be contacted to promote attendance. It was also touched on that general practice does not have the resources in place to follow-up with every cancelled appointment. The consultant psychiatrist considered that the information they shared with the GP was taken seriously with regard to their patients, yet a patient's lack of adherence in attending appointments means that they could 'fall between the cracks' if they have no support in place.

*"If you're concerned about somebody and they're not going into see their GP and they aren't actively engaged, there often isn't an obvious pathway for what happens"*. (CMHT04)

### Communication about physical health of patients with EMI With patients

Comprehension and implementation of the physical health advice offered during consultations was recognised by participants as problematic, mainly because of a lack of patient motivation to follow through with all appointments, time limitation during consultation and characteristics of their health condition. GPs believed that advice provided was mostly understood by their EMI patients but *"getting into the structure of a routine is difficult. Motivation is also something that is a problem..."* (GP02).

Making positive changes to the lifestyle of their patients was found to be challenging for the CMH team side as well, due to time restriction: *"...it's often difficult as a psychiatrist to devote times to these matters and follow through with people so it comes down to a reasonable conversation with people..."* (CMHT04). Several GPs addressed that it may not be worth intervening due to complex lifestyle behaviours: *"If you're seeing someone who has a lot of instability in their life due to their mental health then if you find a balance in that then it's hard to go digging at, picking on them to start watching what they eat and their smoking"* (GP16).

### Between healthcare providers

The importance of the development of good quality communication and a relationship between GPs and members of the CMH teams was evident throughout the interviews. In cases where both sides have experienced direct contact with one another and had the opportunity to develop their professional relationship over time, communication was perceived to be very effective.

“We have brilliant mental health nurses who we can contact very readily if we have concerns. It’s a difficult part of medicine but it actually runs very well in comparison to other chronic illness”. (GP11)

On the other hand, GPs and CMH team members addressed the issue of how they did not receive information from the other party directly, and that patients were used as messengers to deliver information. This was perceived to be extremely problematic due to issues the patient may have with retaining necessary information: “*The information comes through the patient, usually verbally ... or half the time the patient can’t remember what they were told to get done*” (GP02). Overall, collaboration between GPs and CMH teams was often perceived to be non-systematic and less than optimal. Both GP and CMH team participants addressed that poor communication sometimes resulted in tests, such as blood tests, being duplicated by the GP only weeks after the consultant psychiatrist had performed them, or vice versa. This was a source of frustration for the participants.

Participants considered that integrated communication is a promising approach to dealing with patients with EMI. The suggestions to improve a sense of collaboration between GPs and CMH teams were based around communication pathways, including “... *regular contact*” (CMHT03), “*Probably a secure email policy*” (GP07), “*use Healthmail*” (GP13) and “*more open communication*” (CMHT03).

## DISCUSSION

### Summary

Service providers agreed that people with EMI had increased risk of physical health illnesses and that physical health measures should be monitored. While some patient level difficulties were identified, the key barriers noted were at a system level—difficulties communicating, diagnostic overshadowing and resources, particularly in terms of having sufficient time to follow-up on missed appointments and to support patient self-management. Communication difficulties between primary and secondary care were not limited to the care of patients with EMI but were seen as systemic within the Irish healthcare system.

### Strengths and limitations

A key strength of this work is that it includes an in-depth assessment of a mix of health professionals’ perspectives on the topic. Further strengths are the use of the SRQR guidelines and the broad national representation among participants. A key limitation is that data from only one country are included, but the findings and conclusions may be relevant to others who also do not have a clear policy regarding who is clinically responsible for this area in practice. The thematic analysis approach may be a further limiting factor, reducing the depth of understanding which can be claimed.

### Comparison with existing literature

Diagnostic overshadowing was identified by participants, and it is considered in the literature as being an important contributory factor in terms of access and care provision.<sup>31</sup>

This leads healthcare practitioners to focus less on the physical illnesses of people with EMI and more on their mental illness. Since 2004, England and Wales have incentivised their GPs to provide annual physical health checks to their patients with EMI,<sup>32</sup> and in 2005, it was found that 80% of GPs in these two countries conducted annual physical health checks on patients with EMI.<sup>33</sup> Annual physical health checks have been identified as good opportunities to carry out brief interventions on patients with EMI.<sup>34</sup>

A lack of integration of primary and secondary services is seen as one of the causes of the discrepancy in physical health outcomes between people with EMI and the general population.<sup>35</sup> A mechanism to record physical health parameters and improved integration of carers was recommended by participants.

In England, NICE<sup>36</sup> have advised that at any one time either the secondary or primary care services should have overall responsibility for the physical health of patients with bipolar disorder. For schizophrenia, it is recommended that psychiatric services monitor physical health for 12 months after diagnosis and then a shared care arrangement is set up.<sup>37</sup> Primary healthcare professionals are advised to conduct annual physical health checks on this group.<sup>36 37</sup>

A key issue identified by participants was the need to identify which service providers have overall responsibility for monitoring the physical health of people with EMI. It has been propounded that one of the greatest risks to patient safety occurs when the patient passes across the boundaries of care, in part due to lack of clarity about where responsibility and accountability of care lies in such situations.<sup>38 39</sup>

### Implications for research/practice

Patient safety is more at risk when patients cross boundaries of care,<sup>38</sup> and so it is necessary that clinical accountability and responsibility are established. The evidence from this work could form the basis for innovation and change in practice and inform future service delivery in Ireland and elsewhere for people with an EMI, particularly in countries where it is not clear who has overall responsibility to monitor their physical health. This role requires time and regular contact, and both the organisation and the funding of the health system need to support it.

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**TOPIC GUIDE**

- Explain about the research, and what is expected from the interview (talking through the information sheet)
- Re-confirm consent to be interviewed
- Re-confirm consent to record the interview
- Ask if they have any other questions

**General practice staff****1. Factors that enable/hinder the management of the physical health of patients with enduring mental illness (EMI) for GPs****Prompts/Questions**

In your experience how common are physical health problems in patients with EMI?

Have you encountered any challenges in managing the physical health of EMI patients?

Do you think patients with EMI recognise when they experience physical health problems?

Do you find that patients' carers report any physical health issues to you if the EMI patients do not recognise them?

In what way does the EMI patient play a role in making decisions in relation to their physical health?

Do you feel that your EMI patients are interested in their physical health as compared to their mental health?

How well do you feel that your patients have manage their physical health

What arrangements would you make for follow-up of physical health issues if necessary?

Do you do annual physical health checks as part of your management of a patient's enduring mental illness?

**2. Collaboration with community mental health teams****Prompts/Questions**

How do you currently engage with members of the community mental health team in relation to your patient?

How do the CMHT (i.e. psychiatrists, mental health nurses, registrars) currently engage with you?

Does this work sufficiently well?

Do you receive information from community mental health teams in relation to any physical health issues of relevant patients?

Do you inform the patient's psychiatrist and or other relevant members of the community mental health team if there are any health issues for patients related to their medications or mental health?

How could the communication process and a sense of collaboration be improved?

**Summing up**

Would you like to add anything else to our discussion?

Do you have any questions?

## Community Mental Health Team Participants

### 1. Facilitators/Barriers to supporting patients with enduring mental health illness to care for their physical health

#### Prompts/Questions

- In your experience how common are physical health problems in patients with enduring mental illness?
- What types of physical health problems do you typically see in patients with enduring mental illness?
- Do patients self-report physical health symptoms?
- Do you do annual physical health checks? For example, to prompt: Test for side-effects which may be a result of certain psychiatric medicines as part of your management of a patient's enduring mental illness?
- Do you inform the other relevant members of the community mental health team of any relevant results?
- Do you inform the patient's GP of results?
- How well do you feel that your patients have manage their physical health?
- How do you communicate with your patients about their physical health?
- What arrangements would you make for follow-up of physical health issues if necessary?

### 2. Collaboration with GPs – issues around integration with primary care

#### Prompts/Questions

- Do you currently engage with patients GPs relation to your patient's physical health?
- Do you receive information from GPs in relation to any health issues of relevant patients?
- Do you have a clear communication pathway with patients GPs?
- Do you share information with GPs in relation to any physical health issues of relevant patients?
- How do you find collaborating with GPs?
- In what ways do you think this collaboration can be improved in order to enhance the quality of the care of these patients?

#### Summing up

- Would you like to add anything else to our discussion?
- Do you have any questions?



# Reporting checklist for qualitative study.

Based on the SRQR guidelines.

	Reporting Item	Page Number
<b>Title</b>		
	<a href="#">#1</a> Concise description of the nature and topic of the study identifying the study as qualitative or indicating the approach (e.g. ethnography, grounded theory) or data collection methods (e.g. interview, focus group) is recommended	1
<b>Abstract</b>		
	<a href="#">#2</a> Summary of the key elements of the study using the abstract format of the intended publication; typically includes background, purpose, methods, results and conclusions	2
<b>Introduction</b>		
Problem formulation	<a href="#">#3</a> Description and significance of the problem / phenomenon studied: review of relevant theory and empirical work; problem statement	3-4
Purpose or research question	<a href="#">#4</a> Purpose of the study and specific objectives or questions	4
<b>Methods</b>		
Qualitative approach and research paradigm	<a href="#">#5</a> Qualitative approach (e.g. ethnography, grounded theory, case study, phenomenology, narrative research) and guiding theory if appropriate; identifying the research paradigm (e.g. postpositivist, constructivist / interpretivist) is also recommended; rationale. The rationale should briefly discuss the justification for choosing that theory, approach, method or technique rather than other options available; the assumptions and limitations implicit in those choices and how those choices influence study	4-6

		conclusions and transferability. As appropriate the rationale for several items might be discussed together.	
Researcher characteristics and reflexivity	<a href="#">#6</a>	Researchers' characteristics that may influence the research, including personal attributes, qualifications / experience, relationship with participants, assumptions and / or presuppositions; potential or actual interaction between researchers' characteristics and the research questions, approach, methods, results and / or transferability	5
Context	<a href="#">#7</a>	Setting / site and salient contextual factors; rationale	4-5
Sampling strategy	<a href="#">#8</a>	How and why research participants, documents, or events were selected; criteria for deciding when no further sampling was necessary (e.g. sampling saturation); rationale	4-5
Ethical issues pertaining to human subjects	<a href="#">#9</a>	Documentation of approval by an appropriate ethics review board and participant consent, or explanation for lack thereof; other confidentiality and data security issues	13
Data collection methods	<a href="#">#10</a>	Types of data collected; details of data collection procedures including (as appropriate) start and stop dates of data collection and analysis, iterative process, triangulation of sources / methods, and modification of procedures in response to evolving study findings; rationale	5-6
Data collection instruments and technologies	<a href="#">#11</a>	Description of instruments (e.g. interview guides, questionnaires) and devices (e.g. audio recorders) used for data collection; if / how the instruments(s) changed over the course of the study	5
Units of study	<a href="#">#12</a>	Number and relevant characteristics of participants, documents, or events included in the study; level of participation (could be reported in results)	4-5
Data processing	<a href="#">#13</a>	Methods for processing data prior to and during analysis, including transcription, data entry, data management and security, verification of data	5-6

		integrity, data coding, and anonymisation / deidentification of excerpts	
Data analysis	<a href="#">#14</a>	Process by which inferences, themes, etc. were identified and developed, including the researchers involved in data analysis; usually references a specific paradigm or approach; rationale	5-6
Techniques to enhance trustworthiness	<a href="#">#15</a>	Techniques to enhance trustworthiness and credibility of data analysis (e.g. member checking, audit trail, triangulation); rationale	6
<b>Results/findings</b>			
Syntheses and interpretation	<a href="#">#16</a>	Main findings (e.g. interpretations, inferences, and themes); might include development of a theory or model, or integration with prior research or theory	6-11
Links to empirical data	<a href="#">#17</a>	Evidence (e.g. quotes, field notes, text excerpts, photographs) to substantiate analytic findings	6-11
<b>Discussion</b>			
Intergration with prior work, implications, transferability and contribution(s) to the field	<a href="#">#18</a>	Short summary of main findings; explanation of how findings and conclusions connect to, support, elaborate on, or challenge conclusions of earlier scholarship; discussion of scope of application / generalizability; identification of unique contributions(s) to scholarship in a discipline or field	11-12
Limitations	<a href="#">#19</a>	Trustworthiness and limitations of findings	11-12
<b>Other</b>			
Conflicts of interest	<a href="#">#20</a>	Potential sources of influence of perceived influence on study conduct and conclusions; how these were managed	13
Funding	<a href="#">#21</a>	Sources of funding and other support; role of funders in data collection, interpretation and reporting	13