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Challenges in detecting and managing mild cognitive impairment in primary care: a focus group study in Shanghai, China

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ABSTRACT

Introduction Detection of mild cognitive impairment (MCI) is essential in slowing progression to dementia. Primary care plays a vital role in detecting and managing MCI. The chronic care model (CCM) provides effective methods to manage chronic diseases.

Objective This study aimed to explore how MCI services are delivered in primary care in China.

Methods Focus group interviews were conducted face to face among MCI stakeholders from six community health centres (CHCs) involved in the 'friendly community programme' in Shanghai, China. A total of 124 MCI stakeholders were interviewed, consisting of 6 groups (n=42) of general practitioners (GPs), 3 groups (n=18) of CHC managers, 4 groups (n=32) of people with MCI and 4 groups (n=32) of informal caregivers. Content and thematic analyses were performed using a combination of induction and deduction approaches.

Results Three major themes emerged from the data corresponding to the CCM framework: hesitant patients, unprepared providers and misaligned environments. While the public are hesitant to seek medical attention for MCI problems, due to misunderstanding, social stigma and a lack of perceived benefits, GPs and CHCs are not well prepared either, due to lack of knowledge and a shortage of GPs, and a lack of policy, funding and information support. None of these issues can be addressed separately without tackling the others.

Conclusion This study combined the diverse perceptions of all the main stakeholders to detect and manage MCI in primary care settings in China. A vicious circle was found among the three interconnected CCM domains, creating a gridlock that should be addressed through a system's approach targeting all of the above-mentioned aspects.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This is a large qualitative study involving 124 participants, exploring the perceptions and experiences of people in community detection and management of mild cognitive impairment (MCI).
⇒ Focus group interviews on MCI patients, caregivers, general practitioners and community health managers were conducted, respectively, to reflect the diverse views and experiences of main stakeholders.
⇒ Challenges in detecting and managing MCI in primary care were examined in line with the chronic care model.
⇒ The study was conducted in Shanghai, one of the most developed regions in China, which limits generalisability of the findings.

BACKGROUND

Dementia has been established as a global health priority.[1] It is estimated that the number of people living with dementia will increase from 57.4 million in 2019 to 152.8 million in 2050.[2] From the report of the Global Burden of Disease Study 2016,[3] dementia was the fifth largest cause of death.[3] However, it is estimated that 40% of dementia might be prevented or delayed up by modifying its risk factors.[4] Mild cognitive impairment (MCI), which is seen as an intermediate phase between normal cognitive ageing and overt dementia,[5] has attracted great interest in efforts to curb dementia.

Primary care plays a vital role in health promotion and disease prevention.[6] The central role of general practitioners (GPs) in detecting and managing MCI has been highlighted in health systems where primary care services are centred around primary care.[7 8] A GP-led strategy in MCI management has been endorsed in the WHO's global action plan on a public health response to dementia[9] and in the American Academy of Neurology's practice guidelines on MCI management.[10] GPs are often designated as a first point of contact for consumers. They maintain regular contacts with the majority of their community members, fostering continuing relationships.[11] These relationships provide a robust foundation on which to attract trust from consumers, and place GPs in a unique position in detecting and managing the wide array of risk factors associated with MCI, such as sociodemographic characteristics (age, low education, low income, social isolation),

lifestyle and behaviours (smoking, insufficient physical activity, alcohol drinking), mental health (depression, neuropsychiatric symptoms), sensory function decline (olfactory dysfunction, hearing loss), chronic conditions (diabetes, prediabetes, metabolic syndrome, arterial ageing, left ventricle mass) and dietary factors (low serum folate, unhealthy diet).[4 12–14]

In a recent review, Sabbagh *et al* concluded that assessing modifiable risk factors, screening cognitive impairment and providing non-pharmacological interventions are among the key functions of GPs in MCI management.[6] However, great challenges exist to empower and enable GPs to fullfill the above-mentioned roles. Many effective chronic disease management strategies depend on productive interactions between well-prepared proactive practice teams and well-informed motivated patients, commonly referred to as the chronic care model (CCM).[15] Challenges perceived by primary care physicians in detecting and managing MCI are often multifaceted, including those patient-related, physician-related, setting-related and system-related factors, and those relating to the clinical profile of the disease.[16 17]

Recent health reforms in China have attempted to revitalise its primary care sector through a population-based planned approach to community health services development.[18] GPs as a new medical profession with formal training have been supposed to serve as a backbone of community health services since 1989, replacing the lay-worker (barefoot doctor) strategy for primary care adopted in the past.[19] Such a paradigm shift represents a response to a rapid escalation of wealth and increased burden of chronic diseases. Despite great efforts made by the government, significant barriers have hindered the effective functioning of the new model. Skilled primary care workers have been in short supply. In 2017, China recorded 1.82 registered GPs per 10 000 people, less than one-third of the 2030 target set up by the central government.[20] In addition, there is a lack of confidence in GPs, and no mandatory referral requirements from GPs are required for patients to seek hospital care.[21] Most patients with chronic diseases prefer to seek medical consultations from a hospital specialist.[22] Although management of chronic diseases can fall into the funding scope of the national essential public health services for which screening and monitoring services are free of charge, dementia is not included in the national basic package of public health services in primary care.[23]

There is a paucity in the literature documenting how MCI services are delivered in primary care in China, although community recognition and management of dementia has started to attract research attention.[24 25] This study aimed to understand the experiences of those involved in community detection and management of MCI in Shanghai, China. The study adopted a qualitative design, as part of a larger project that employed a sequential mixed methodological approach. The results of the current qualitative study provided support to the development of a questionnaire survey of GPs.

METHODS
A qualitative study design was chosen, as it is the best strategy to capture unknown real-world scenarios.[26] We conducted focus group interviews rather than individual in-depth interviews because focus groups involve interactions among study participants, which adds a useful dimension to the information provided and may result in themes that are unanticipated by the moderators/interviewers.[27] Focus groups have been widely used in mental health research.[28] We classified study participants into four categories: people living with MCI, family informal caregivers, GPs and community health centre (CHC) managers. Each focus group session comprised participants from the same category in order to avoid dominance of any participant category in the discussions and to maximise engagement of each participant.

Study setting
The study was conducted in CHCs in Shanghai, China. Eligible participating CHCs were involved in the 'friendly community programme' for older people with cognitive impairment in 28 residential communities in 2019. The programme was funded and coordinated by local governments to support the prevention and management of cognitive impairment in older adults through public education, risk assessment, non-pharmacological interventions, support to the family, coordination of social and medical resources, and development of an information network. Community residents covered by the programme enjoyed the above-mentioned services free of charge. CHCs were designated to work in partnerships with local community organisations in responding to the challenge of ageing, especially in relation to cognitive impairment.

Patient and public involvement
Patients and informal caregivers were invited to comment on the study question prompts. The study results were disseminated as a report to all participants after all interviews were finished.

Study participants and recruitment
A purposive sampling strategy was adopted to select a convenience sample of study participants from six CHCs, considering a balance of age, gender and MCI (or care for MCI) experience in each of the four categories of participants.

Practising GPs who had managed at least one person with MCI and CHC managers who were responsible for the community chronic diseases management initiative were invited by the research team to participate in the study. The participating GPs were then asked to distribute the recruitment flyer to their patients with MCI and family informal caregivers. The MCI diagnosis had to be established through a screening conducted by a GP followed by a confirmation of the diagnosis by neurologists from a tertiary hospital using the Petersen diagnostic criteria.[5] One family caregiver was nominated by each person with

MCI following these inclusion criteria: (1) at least 18 years of age and (2) currently providing assistance with basic activities of daily living to the person with MCI at least two times per week. Anyone with a serious cognitive disorder and/or other serious disabilities (eg, physical and communication difficulties) that could hinder capacity to participate were excluded from the study.

In total, 42 GPs, 18 CHC managers, 32 people with MCI and 32 informal caregivers participated in the focus group sessions.

Question prompts
The development of question prompts (see online supplemental appendix 1) was guided by the CCM, covering the perspectives of patients and providers, and the platform on which the two parties interact.[29] Many empirical studies have used the CCM to explore good practices in chronic disease management in primary care settings.[29 30]

In this study, the questions were formulated in consideration of the specific backgrounds of the study participants and were tailored to the contexts of community health services in Shanghai, including the 'friendly community programme'. The research team also sought advice from at least two participants in each category prior to the focus group sessions regarding the appropriate ways of asking these open-ended questions. However, the focus group discussions were kept dynamic and remained open to new questions outside of the prompt lists.[31]

Data collection
A total of 17 focus group sessions were held between October and November 2020 (when Shanghai had 0 community transmission of COVID-19): 6 groups for 42 GPs, 3 groups for 18 CHC managers, 4 groups for 32 people with MCI and 4 groups for 32 informal caregivers. No participants dropped out of the study.

Each session was conducted face to face in Mandarin or Shanghai native language in a secured conference room of the participating CHC that was closest to where most participants lived. Written informed consent was obtained from each participant prior to commencement of the focus groups. A token gift (roughly A$40) was given to each participant on completion of their session. No prospective participants withdrew.

The discussions were facilitated by the first author (YL), who had received training on focus group interviews. Each session was started with an introduction and ice-breaking conversations. These were followed by broad data-generating questions guided by the prompt list. After the participants described their story in response to the questions, additional questions were asked by the facilitator to encourage the participants to provide deeper insight into the related topics. These included their good and bad experiences in MCI-related services, perceived barriers in community detection and management of MCI, and suggestions for improving their experiences. The participants were encouraged to elaborate on details for clarity and to provide examples to support their arguments. Each session ended with a closing summary from the facilitator, along with invitations for more comments and clarifications. One female research assistant in public health took observational notes during the process.

On average, each session lasted for about 2 hours. Discussions were audio recorded and transcribed verbatim as soon as possible after the session. The first author (YL) performed preliminary analyses on the transcribed data, discussed the results with the second author (CL) and modified facilitation strategies for the subsequent focus groups. Data collection activities stopped when information satuation[32] was reached, as agreed by two authors (YL and CL).

Data analysis
Content and thematic analyses with an interpretive approach[33] were performed using a combination of induction (bottom-up) and deduction (top-down) approaches.

Data were coded in the original language in three steps. These three coding steps proceeded subsequently and iteratively.[27] In the first step, the first author (YL) reviewed the transcripts line by line, identified concepts or key ideas contained within the textual data, and assigned a code name for each concept/idea. Relationships between these codes were then examined in the second step and codes were grouped into subcategories under the three domains of requirements of the CCM framework: patient engagement, provision of services, and the environments influencing patients and providers and their interactions. These results were discussed between YL and CL, triggering repeated amendments and refinements of the coding and categorisation until the two authors reached a consensus. The last author (DY) served as a third reserved person for consultations, should any discrepancies remained unsolved. In the third step, the first two authors (YL and CL) worked together to establish a cohesive storyline that anchored in a core category with logical links to all other categories. In this study, the experience of GPs in MCI detection and management was portrayed using a systems view guided by the CCM framework.[29]

Data analyses were performed using NVivo V.10 (QSR International, 2012). The results were reported following the Standards for Reporting Qualitative Research (online supplemental appendix 2).[34]

RESULTS
Characteristics of study participants
On average, the participating GPs (n=42) had worked in primary care for 10.3 years (ranging from 2 to 16 years). More than 70% were women, resembling the gender ratio of GPs in the participating CHCs.

The mean age of the participants with MCI (n=32) was 70.5 years (ranging from 63 to 84). On average, 7.1 months (ranging from 1 to 14) had lapsed since the confirmation of their MCI diagnosis.

The majority of the participating family informal caregivers (n=32) were spouse of the patient (71.8%). The average number of days of care duty was 5.7.

The participating CHC managers had an average age of 45.1 years (ranging from 40 to 53). Two-thirds had over 10 years of management experience and 21% were directly involved in community management of MCI patients (online supplemental appendix 3 illustrates the distribution of gender and age of four groups of stakeholders).

Community detection and management of MCI

Three major themes emerged from the data corresponding to the CCM framework: hesitant patients, unprepared providers and misaligned environments (table 1).

Hesitant patients

Three subthemes were identified in regard to the theme 'hesitant patients': ignorance, inertia and access barriers. While ignorance refers to a lack of knowledge and concern about MCI, inertia refers to a lack of motivation to take action. Concerns about the affordability and accessibility of care may also deter the public from seeking MCI-related services.

Ignorance

The participants across all of the four categories reported that MCI problems had not attracted much attention from the local communities. This ignorance was shaped by misunderstanding and a lack of knowledge. As a result, MCI was given low priority in comparison with other health problems and chronic conditions. Great efforts were taken by some GPs to persuade their patients to accept MCI screening.

Normal ageing

Cognitive decline was often construed as part of normal ageing. Even patients who had been diagnosed with MCI did not necessarily treat it as a disease condition, possibly due to the fact that MCI has limited impacts on normal life.

Therapeutic nihilism

Some participants with MCI were hesitant to receive further interventions from CHCs simply because they did not believe an effective treatment for the problem existed, even though they participated in the 'friendly community programme' for cognitive impairment.

Competing health demands

Comorbidities are common in people with MCI, such as stroke, diabetes and even cancer. MCI was usually placed at the lowest end of priority in comparison with other conditions. There was a lack of urgency to treat MCI in the eyes of the participants with MCI, their family informal caregivers and GPs.

Inertia

People would not necessarily accept MCI screening even if they realised that memory decline was a problem, due to fears of adverse emotional and financial consequences linked to the MCI diagnosis. These fears might also cause concerns from the family caregivers and GPs.

Negative emotional reaction

Fear and worry were commonly mentioned emotional reactions that deterred the people concerned from taking action to confirm the diagnosis of MCI. They feared that they would end up with a diagnosis of dementia and worried about the distress associated with MCI diagnosis. This fear and worry could be exacerbated by perceived stigma and labelling from society. GPs also considered the potential emotional consequences of diagnosing MCI in their clinical decision-making.

Financial concerns

People weighed the benefits of MCI interventions against their costs. Unfortunately, there was a lack of perceived immediate benefits from community detection and management of MCI. Indeed, for individuals, the potential benefit of MCI management in slowing its progression to dementia is not directly observable. Interestingly, some participants with MCI expressed willingness to consider MCI screening if supportive services were delivered free of charge, while others recommended indirect financial subsidies for people with MCI.

Access barriers

Service access barriers at the levels of medical practitioners and health institutions were highlighted by participating patients and their family caregivers.

Inconvenient services design

Some participants with MCI and caregivers reported confusion and difficulties in seeking MCI-related services. The lack of targeted services or instructions about procedures in community facilities and hospitals jeopardised people's intentions to seek care.

Helplessness of providers

Patients were discouraged by the lack of responsiveness from the providers to their memory problems. What GPs could provide was no more than comfort and suggestions to find other specialists.

Unprepared providers

GPs expressed some concerns about their limited knowledge in MCI screening, diagnosis and interventions. Although they felt they could provide non-pharmacological interventions, they did not have much confidence in discussing the MCI diagnosis with their patients due to concerns about distrust from the patients, ambiguity of the practice guidelines and doubts about the outcomes. Time constraints were also mentioned as a barrier preventing GPs from endorsing community detection and management of MCI.

Table 1 Timely MCI detection and management themes generated among MCI stakeholders

Themes	Subthemes	Categories	Quote
Hesitant patients	Ignorance	Normal ageing	It (having memory problems) is common when we are getting old (others nodding in agreement) … (Patient, male, 60–70 years old) It is not easy to persuade patients to accept MCI intervention, …since it does not affect their normal life. (GP, female, 30–40 years old)
		Therapeutic nihilism	I can't control memory loss, just like I can't control the process of growing old, like the wrinkle(s)on my face … (Patient, male, 70–80 years old)
		Competing health demands	My husband has serious memory disorder; however, his lung cancer is under chemotherapy. You know, we have no energy to care about this memory problem … (Caregiver, female, 60–70 years old)
	Inertia	Negative emotional reaction	I feel lucky that I'm not confirmed with dementia, but when will I develop into dementia?' (Patient, female, 60–70 years old) 'I feel awkward to be known by my neighbours for taking this MCI screening in CHCs. Would they marginalise me if they know I am diagnosed with MCI? (Patient, female, 60–70 years old) We seldom use the term "Chi Dai", which means "stupid" in Chinese language. Patients may accept the screening or interventions without a definite diagnosis for the purpose of improving memory. It is a dilemma between the patient's rights to know and withholding (diagnostic) information to avoid fears and worries. (GP, male, 30–40 years old)
		Financial concerns	Diagnosis with a new disease is accompanied with more money to spend in treatments. Can we get any financial support if we are diagnosed with MCI? … (Patient, male, 60–70 years old) Patients may consider MCI screening if they don't need to pay. (GP, female, 40–50 years old)
	Access barriers	Inconvenient design of services	There was no memory clinic in the CHCs. I'd go to see a specialist in a tertiary hospital, but it is too far away and there are too many patients in big hospitals. (Patient, male, 60–70 years old)
		Helplessness of providers	… We could not prescribe any medicine or provide specific interventions in CHCs. (GP, male, >40 years old) I have consulted doctors several times about my memory problems, but some said it is normal while others just comforted me or did not say anything at all … (Patient, male, 60–70 years old)
Unprepared providers	Knowledge gaps	Lack of knowledge and intention to diagnose MCI	I think the early signs of MCI are difficult to be differentiated from normal ageing and other disease conditions, such as depression … (GP, male, 30–40 years old)
		Patched non-specific interventions	I'm not sure about what can be done to the patients diagnosed with MCI. It seems no medicine is recommended from the current guidelines. (GP, male, 25–35 years old) … I may observe older patients with possible MCI over several months before trying to provide advice. (GP, female, >40 years old)
	Low confidence	Lack of practice experience	We have little experience in MCI detection and management, which should be conducted in the specialised tertiary hospital. (GP, male, >40 years old) GPs are not specialists in this field. I would feel awkward if it is not MCI when I refer them to a specialist. (Patient, male, 60–70 years old)
		Patient distrust in GPs	I have a good relationship with my GP, but they are not specialised in this problem, and I don't know whether they would be able to help me with such a problem. (Patient, female, 60–70 years old)
		Doubt about the practice value	We can't even convince ourselves that community early detection and management of MCI could help control this problem … (GP, male, 30–40 years old)
	Multitasking and time constraint	Heavy workloads	Some of our GPs have been organised to work in the frontline of fighting against COVID-19, and the shortage of GPs is even more serious than before … (CHC Manager, male, 45–55 years old) Medical doctors are too busy … When other patients are waiting outside of the clinic, we'd feel guilty disrupting their services (by asking for MCI-related services). (Patient, female, 60–70 years old)
		Lengthy process in screening	The screening process costs at least 30 minutes for each person … (GP, female, 30–40 years old)
		Follow-up requirements	This work is not once for all. We have to be responsible for the patient if we make the MCI diagnosis. Longitudinal observations are needed to assess whether their memory is improving or deteriorating. (GP, male, >40 years old)

Continued

Themes	Subthemes	Categories	Quote
Misaligned environments	Shortage of infrastructure support	Lack of public awareness	… I have no idea about MCI. I thought those without a family history of dementia would not get this disease. (Patient, male, 60–70 years old) I have to acknowledge that some chronic diseases we treat every day are modifiable risk factors of MCI. I hope patients could understand this through participation in public education programmes … (GP, female, >40 years old)
		Lack of professional training	We have little training focusing on psychological health problems, even though we have so many training programmes relating to physical diseases. (GP, female, 30–40 years old)
		Lack of financing support	It would be easier for us to integrate various resources for promoting community detection and management of MCI, if we had funding support. (CHCs, female, 40–50 years old) If the government can provide some support like social benefits or medical insurance benefits, I'm willing to take part in (getting an MCI diagnosis). (Patient, male, 60–70 years old)
	Poor coordination of care	Gap in duties of care	GPs are not required to detect and manage MCI according to the essential primary care package … (CHC manager, female, 45–55 years old) I realised that she (the patient) should go to see a medical doctor if forgetfulness is a disease (symptom). But what I said is useless. Actually, I don't know much about this disease. (Caregiver, female, 50–60 years old) Well, we are not doctors. We don't know forgetfulness is a serious symptom that needs to find a doctor for help. (Patient, female, 60–70 years old) Caregivers could provide us with more detailed information to help us make the final diagnosis. They also play an important role to encourage MCI patients to seek medical advice and to monitor the lifestyle change of the patients in line with continuous medical advice. (GP, male, >40 years old)
		Fragmentations in team management	The nurses would only listen to the orders of the head nurse, even though they are my team members for chronic disease management. (GP, male, 30–40 years old)
		Lack of referral mechanisms	I don't know which psychiatrist my patients should be referred to. I'm not sure whether he/she would accept my patients. It has been difficult to get the medical records of our patients from the referring hospitals due to the lack of collaboration between CHCs and tertiary hospitals. (GP, female, 30–40 years old)

GPs, general practitioners; MCI, mild cognitive impairment.

Knowledge gaps
Lack of knowledge and intention to diagnose MCI
Although some GP participants admitted their lack of diagnostic knowledge about MCI, they also downplayed the importance of MCI diagnosis because of doubts about the availability and effectiveness of intervention measures.

Patched non-specific interventions
Some GPs preferred to provide non-pharmacological interventions without a confirmed MCI diagnosis because these interventions can bring benefits to patients with a range of different conditions. However, none of the GP participants mentioned the adoption of evidence-based cognitive intervention measures, such as cognitive stimulation,[35] cognitive training,[36] and cognitive rehabilitation,[37] indicating a lack of relevant training or specialists in CHCs.

Low confidence
Lack of practice experience
Some GPs did not believe that CHCs were the right place to provide MCI-related services, citing their lack of specialist experience as a major reason. This sentiment was echoed by some participants with MCI.

Patient distrust in GPs
Some GPs felt that there was a dilemma in making a referral decision for MCI diagnosis simply because the patients might not trust them in offering any help with this matter.

Doubt about the practice value
The low confidence of GPs was also reflected in their doubt about the value of their practice in community detection and management of MCI.

Multitasking and time constraints
Heavy workloads
CHC managers were concerned about the shortage of human resources. The limited number of GPs employed at CHCs had been assigned multiple duties, including acute care, management of chronic conditions and public health activities. MCI detection and management would add additional loads to the already overwhelmed GP workforce.

Lengthy process in screening
MCI screening is a lengthy process. GP participants described their struggles to manage the time needed for such activities.

Follow-up requirements

Community detection and management of MCI requires continuing assessment and follow-up services. Although GPs are well positioned to offer such continuous services due to their long-term relationship with the patients, GP participants had some concerns about its implications on their workload.

Misaligned environments

Supportive environments are critical to engaging the patients and to incentivise the GPs to provide MCI-related services. Unfortunately, significant environmental barriers existed in Shanghai, as was indicated by study participants. These barriers were derived from the health organisations, the health system and the broader society.

Shortage of infrastructure support
Lack of public awareness

Unlike dementia, MCI has attracted little attention from the public media. GPs, however, did not seem to have been actively engaged in educating their patients or the public.

Lack of professional training

Some GP participants complained about the lack of professional training in relation to MCI. CHC managers, on the other hand, might not consider it necessary due to low consumer demand.

Lack of financing support

There was a lack of funding support to both providers and patients. While patients had to pay for clinical services, imposing a financial burden that some patients did not want to bear, other activities that are critical to the development of a coordinated effort found no sources of funding.

Poor coordination of care
Gap in duties of care

Care for people with MCI involved multiple stakeholders. However, there was no consensus among study participants about who should take the primary responsibility for community detection and management of MCI. GP participants did not always think that the primary responsibility fell on their shoulders because of the policy ambiguity surrounding MCI. In contrast, the patients and their family caregivers expected their medical doctors to initiate the conversations about MCI.

Fragmentations in team management

GPs are supposed to act as team leaders in managing chronic conditions, including MCI. The teams involved include nurses, public health workers and social workers. However, some GP participants experienced difficulties in building high-performing teams due to fragmentation of reporting lines.

Lack of referral mechanisms

MCI care requires confirmation of diagnosis and medical advice from specialists in tertiary hospitals. The lack of referral mechanisms between CHCs and tertiary hospitals deterred some GPs from engaging in community detection and management of MCI.

DISCUSSION
Summary of main findings

A series of intertwined challenges threaten the successful implementation of the MCI detection and management programme in Shanghai in accordance with the CCM framework. GPs are not well prepared to provide MCI-related services. Meanwhile, they have experienced low levels of recognised needs for MCI care, which is shaped by low health literacy of the consumers and inaction of the healthcare providers. Although CHCs are designated by the government to take a primary responsibility for community detection and management of MCI, CHC managers find it easy to excuse themselves from providing infrastructure support, due to policy ambiguity and a lack of funding sources. The GPs are, therefore, not incentivised to engage in community detection and management of MCI. These factors form a vicious circle, creating a gridlock that should be addressed through a system's approach targeting all the above-mentioned aspects.

Comparison with previous studies

This study found that people with cognitive symptoms are hesitant to seek medical attention. Indeed, some qualitative and cross-sectional studies conducted in China and western countries show that people with MCI and the general public tend to take memory loss and forgetfulness as a natural change in the normal ageing process rather than an indication of cognitive disorders.[38 39] Further, studies have reported a high prevalence of stigma attached to MCI across different cultures.[40] As a result, people may not want to get a diagnosis of MCI in order to avoid the negative emotions and social stigma.

Previous studies have identified a wide variety of challenges for primary care practitioners (including GPs) in managing MCI problems.[17 41 42] In this study, we found that GPs in Shanghai are not well prepared and motivated to deliver MCI-related services. A literature review identified diagnostic uncertainty, social stigma, lack of training, and shortage of specialised diagnostic services as major barriers for primary care physicians to make a timely diagnosis of early dementia.[41] Insufficient knowledge may lead to a lack of confidence in practice, as is indicated in this study and others. Adding to this complexity is the GPs' lack of confidence about the research evidence regarding the outcomes of MCI interventions.[43] A lack of professional training and deviation of practice from clinical guidelines regarding the management of MCI and dementia are evident in GPs from several multicountry studies.[17]

Concerted efforts between providers and patients are needed to enable effective community detection and management of MCI. However, the negative attitudes of the two parties toward MCI detection and management were found to have reinforced each other in this study. The finding echoes those of a recent systematic review, in which GPs were found to be afraid of disturbing the doctor–patient relationship by disclosing a dementia diagnosis, while patients were found to be unhappy with the information provided by their GPs.[44] Our study revealed that neither patients nor GPs in Shanghai have been exposed to a positive environment that encourages community detection and management of MCI. Both cross-sectional and semi-interview studies in China have indicated that both the general public and informal caregivers of people with MCI regard cognitive decline as a normal part of ageing.[39 45] This belief might derive from the stigma associated with MCI.[40] Public health messaging could raise awareness in the general public or exacerbate stigma.[46] However, currently, there is a lack of media attention and public education focusing on MCI. Accordingly, GPs require more time to inform patients about, and disclose the diagnosis of, this condition, apart from the time required to complete the complex screening process. However, it is currently impossible to guarantee the whole process can occur without a sufficient workforce in primary care settings.

Implications

The findings of this study have some research and policy implications for China. A system's approach is needed to address the vicious circle and gridlock caused by the three interconnected CCM domains: hesitant patients, unprepared providers and misaligned environments.

The MCI-related services must be patient centred. Patient engagement is important not only for empowering patients to tackle the social stigma attached to MCI but also for encouraging GPs to work in partnership with patients in detecting and managing MCI.[43] Recent studies have provided patient engagement support strategies, such as medical education, counselling, support groups and personal action plan.[47] In addition, social and financial support is equally, if not more important than patient education to empower people with MCI to seek medical attention. The public need to be educated to confront MCI problems and initiate conversations with GPs. Public education campaigns (often involving public media, coordinated communications and self-management strategies) aiming at improving the health literacy of the public need to be strengthened.[48]

A wide range of support is required to enable GPs to conduct community detection and management of MCI effectively. GPs need to update their MCI-related knowledge and skills continuously. Standard guidelines and cognitive screening tools suitable for application in primary care settings need to be developed to boost the early detection of MCI. A formal information-sharing mechanism needs to be established. Without it, GPs may

be deterred from referring their patients to hospital specialists, despite a strong desire to do so according to a review in Canada.[49] Many health systems are actively linking improved practice with financial incentives to healthcare providers.[50]

There are calls to include dementia care in the community-based aged care service package.[51 52] Given that CHCs in China are heavily oriented towards preventive care, MCI detection and management fits well into the mission of CHCs. A group of experts in the field from the European Society of Hypertension and the European Geriatric Medicine Society suggests routine assessment of cognitive function in older patients with hypertension, since hypertension-mediated damaged brain could evolve undetected for years.[53] Relevant clinical guidelines, governmental policies, funding arrangements, and facility, workforce and information infrastructures have to be aligned to enable GPs to lead the delivery of MCI-related services that are accessible, affordable and appropriate for the patients. Further studies are warranted to identify and quantify gaps and problems in the health system that need to be addressed, including but not limited to the training needs of GPs.

Strengths and limitations

To our knowledge, this is the first study of its kind to combine the diverse perceptions of all the main stakeholders to detect and manage MCI in the primary care setting in China.

Our study also has limitations that need to be acknowledged. First, this study was conducted within the setting of the 'friendly community programme' for older people with cognitive impairment, where both consumers and providers have been empowered with some resources. The situation outside this setting might be more serious. Second, while GPs' views could be found in all subthemes, the views of other stakeholders were sometimes absent. This result may be because other stakeholders might lack of insight into fields, and they are not familiar with, or do not care about. It seems stakeholders were not equally included in the decision-making process.

CONCLUSION

Community detection and management of MCI is facing serious challenges in Shanghai. While the public are hesitant to seek medical attention for MCI problems, due to misunderstanding, social stigma and a lack of perceived benefits, GPs and CHCs are not well prepared either, due to low knowledge and a shortage of GPs, and a lack of policy, funding and information support. None of these issues can be addressed separately without tackling the others.

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