PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

This paper was submitted to a another journal from BMJ but declined for publication following peer review. The authors addressed the reviewers' comments and submitted the revised paper to BMJ Open. The paper was subsequently accepted for publication at BMJ Open.

ARTICLE DETAILS

TITLE (PROVISIONAL)	The Barriers and Facilitators of Family Doctor Contract Services in	
	Caring for Disabled Older Adults in Beijing, China: A Mixed	
	Methods Study	
AUTHORS	Zhang, Zhiying; Zhang, Ruyi; Peng, Yingchun; Zhai, Shaoqi;	
	Zhang, Jiaying; Jin, Qilin; Zhou, Jiaojiao; Li, Hanlin; Chen, Jingjing	

VERSION 1 – REVIEW

REVIEWER	Kitreerawutiwong, Nithra	
	Naresuan University, Phitsanulok, Thailand, Community health	
REVIEW RETURNED	04-Feb-2023	

GENERAL COMMENTS	focus on one sector of healthcare provider not cover the perspective of all stakeholder.
	Abstract 1. Design What are the data analysis used in quantitative and qualitative approach? What are the methods that used to integrate data from each approach? 2. The randomly selected of the participants used of which method of selection such as simple random sampling or purposive sampling? Result 1. The first sentence of the result, what is this result come
	from which methodology? 2. The results need to be rewrite to answer the research questions align with the research objective and present according to the data that delivered from the quantitative or qualitative approach. Conclusion
	 How does the author conclude this sentence? What are the results that show the relationship of barriers and roles? Keywords Check the keywords with MeSH.
	Value added 1. The heading of "What is already known on this topic" need to be present on the variables that interest of this study such as the already known on family doctor contact services, responsibility of family doctors, and challenge and opportunities of FDs in providing of care to disabled older adult.

- 2. The heading of "What does this study add" need to be present on identifying the new knowledge from this study rather than a broad concept that can be review from the literature.
- 3. The heading of "How this study might affect research, practice or policy" need to be present on the specific area of research, practice, and policy based on the new knowledge from this study such inform policy maker to allocated resources on training of family doctor or.... etc. Introduction
- 1. What are the roles of responsibility of family doctor in developed and developing country?
- 2. What is the country policy on this group both the social care and health care?
- 3. What is the magnitude of problems in utilizing FDCS?
- 4. What are the problems of utilizing of family doctor contact services, the problems of responsibility of family doctors, and the challenge of FDs in providing of care to disabled older adult?
- 5. Reconsider on the word "elderly" that reflect ageism. Rewrite the word such as the older adult or the senior citizen.
- 6. What are the methods to screen the older adult functions that classified them in active, semi disable and disabled?
- 7. What are the problems regarding current state of Family doctor contract services (FDCS) such the shortage of FDs, the skills or etc in Beijing? What are the implication of this research? Methods
- 1. Describe the setting and the reason for conducted research in this setting.
- 2. What is the method that integrate the data from quantitative to qualitative phase?
- 3. The instrument used; data analysis technique needs to be move due to it is not relevant to this heading.
- 4. What is the amount of population?
- 5. What is the sample size calculation?
- 6. What are the sampling methods used: nonprobability sampling or probability sampling?
- 7. What are the qualifications of the research assistant and how many of them?
- 8. Separate the data collection of quantitative and qualitative phase to make the reader understand the method of data collection. This heading indicates "2.2 Quantitative Phase Data Collection and Subjects" however the author present both of quantitative and qualitative.
- 9. What are the inclusion criterions of the sample in the quantitative phase?
- 10. Separate the data collection of quantitative and qualitative phase to make the reader understand the method of data collection.
- 11. Who are the key informants in collecting data of qualitative phase?
- 12. What are the sampling methods of the participant in the qualitative phase?
- 13. What are the approaches used to contact the sample and participant in collecting data such as invited by the researcher or coordinate with the director and got the name list of sample/participant then communicate via email and make appointment for data collection. Describe the technique used.
- 14. Number of participants in qualitative did not present.
- 15. What is the process of development the questionnaire, how many parts, what is the format of scale?

- 16. The instrument used is the open-end questions and it needs to be aligned with the data analysis. How did the author analyze of the open-end questions? Heading: 2.2.2.3 FDs' evaluation of contracted services for the disabled elderly. Is this instrument present as the questionnaire or open-end questions or etc....? Identify the independent and dependent variable that used these statistics due to several of variables to make the reader understand this analysis. What is the multiple comparison used after the significant 19. of KW test?

 - What are the methods to confirm the validity and reliability of the instrument in quantitative phase?

Qualitative phase

- How to approach the participants? How many participants approach and how many of them declined and come up with the participants who agree to participate?
- 22. What is this bias called?
- 23. Verbatim the transcript not the conversation during interview. During the interview, the interviewee or the research assistant note (Field note) for the main issue and after completing the interview verify the content by them. The notes were used to compare with the verbatim transcription. Due to a verbatim transcript captures every single spoken word in the recording and puts it into text.
- 24. What is the trustworthiness used in this study? Result
- Table 2: Describe the method of ranking such as ranking 25. by the proportion of person time by month hour.
- 26. Table 4: Chi square? Is this statistics present in the data analysis?
- 27. What is the result of KW test? Provide the statistics used under the table.

Discussion

Reorganize the discussion align with the objective. 28. "Objective

To evaluate the current state of Family doctor contract services (FDCS) in Beijing

To identify current state of Family doctor contract services (FDCS) To investigate the challenges and opportunities faced by FDCS in providing care for them."

- Discuss on the findings of this study, compare with literature, and draw the suggestion from this study to extent the knowledge.
- 30. Rewrite this sentence in narrative not the question.
- 31. Limitation of this study were collected data from one sector of healthcare provider does not cover the perspective of all stakeholders.

REVIEWER	Xiao, Yu	
	The Clinical Hospital of Chengdu Brain Science Institute, MOE	
	Key Lab for Neuroinformation, University of Electronic Science and	
	Technology of China, Psychosomatic Medical Center	
REVIEW RETURNED	11-Feb-2023	

GENERAL COMMENTS	This is an interesting study, but there are still some problems to be further solved.
	Abstract: Please avoid using too many abbreviations in the Abstract.

- 2. Abstract: "..the responsibilities of (Family doctors) FDs who.." Abbreviations should be put in this bracket. Please check the full text to avoid the same mistake.
- 3. Keywords: Please rearrange the key words in alphabetical order. 4.Introduction: "Beijing, as a typical example, is characterized by advanced age and a high disability rate." Beijing has a high level of economy and medical care. Why is there a high disability rate? 5.Introduction: "Not only does the large number of disabled elderly imposes a heavy burden on society, but the disabled elderly's needs for health and medical services also bring a great challenge to the primary care system." Describing the elderly as a social burden may lead to discrimination.
- 6.Quantitative findings: "Males occupied less than half (30.1%) of the participants." Why is the proportion of male participants so low? 7.Discussion: "It is worth mentioning that there is a significant difference in satisfaction among the four regions of FDCS." What is the reason for the difference?
- 8.Discussion: "The service provided by rural medical staff for the disabled elderly is better than that provided by urban medical staff, thus satisfying the medical needs of the disabled elderly. It means the living standard of the disabled elderly in urban areas is high, compared with the disabled elderly in rural areas, they may have more diverse medical service needs, so FDCS is difficult to meet their medical needs." I don't quite agree with the authors' explanation of this phenomenon. In other words, although there is more demand for medical services in urban areas, FDs in these areas often have more medical resources.
- 9.Discussion: "FDs in rural areas said that their CHC lacks basic inspection facilities, which brings a lot of inconveniences to conducting FD contract services" Punctuation is lacking at the end of the sentence. There are similar mistakes elsewhere in the whole text.
- 10. Discussion: "How to improve the quality of FDCS for the disabled elderly?" Authors can introduce foreign advanced experience appropriately.
- 11.FDs are vital to China's primary health care system. The development dilemma of family medicine system in China is worthy of attention. The following document may provide some useful information: https://pubmed.ncbi.nlm.nih.gov/34096586/ 12. The language of the full text can be fully polished.

2020 to January 2021 to collect and

VERSION 1 – AUTHOR RESPONSE

Revise opinion	Explanation	The modified content
Reviewer 1		
Dear Dr. Nithra Kit	reerawutiwong	
manuscript. As you introduction,method	nank you for your valuable feedback that we have are concerned, there are several problems in fir dology, results and discussion. We have made e rrections are listed below.	ve sections, including abstract,
Abstract: 1. Design	Thank you for your comprehensive questions. Based on your questions, we	Design A convergent mixed methods study was carried out from October 2020 to January 2021 to collect and

What are the data analysis used in quantitative and qualitative approach? What are the methods that used to integrate data from each approach?

would like to make the following explanation.

- (1) Due to the word limit in the abstract section, we are very sorry for that we failed to write clearly about the methods used in the qualitative and quantitative phases.
- (2) The data analysis used in quantitative phase are frequency and rank, Wilcoxon rank sum test, and Kruskal-Wallis test, etc; The data analysis applied in qualitative phase is thematic framework method. These content are wrote detailed in the method section of our manuscript.
- (3) Thank your for your nice questions, after an extensive review of relevant literature and repeated discussion by our research team, we have defined the integration strategies in this study. It is connecting the results of the quantitative phase to data collection of the qualitative phase.

analyse both quantitative and qualitative data. The integration strategies in this study was connecting the results of the quantitative phase to data collection of the qualitative phase.

Data analysis: Frequency and rank were applied to display the quantitative data of family doctors including demographic characteristics, gender, age, regions, education and positional title, rank sum test was used to analyze the content of the performance evaluation of FDCS based on family doctors, in which Wilcoxon rank sum test pointed to for two groups and Kruskal-Wallis test (K-W test) for multiple groups. After K-W test, we used Nemenyi method to compare pairwise group.

Content Analysis: A thematic framework method was employed in the qualitative study. The data are classified and analyzed by identifying themes, labeling data, and extracting core information . With the help of the grounded theory , the data was divided into discrete parts that represented of raw data and opencoded in order to dig out as many themes as possible . The dominant themes were extracted from the comment that appeared repeatedly. Data reduction was performed manually.

In this study, the quantitative phase and qualitative phase are conducted in parallel and then integrated. The integration strategies in this study was connecting the results of the quantitative phase to data collection of the qualitative phase. By using quantitative method to understand the current status of FDCS in caring for disabled older adults and the main factors which affect family doctors to provide contracted

services for disabled older adults. Then based on the results of the quantitative phase, this study further explored the roles of family doctors and barriers and facilitators of FDCS in caring for disabled older adults. In this study, using both quantitative and qualitative results will provide a better understanding of the roles and challenges faced by family doctors in the process of providing contracted services for disabled older adults and the factors associated with better quality of FDCS for disabled older adults. Abstract: Thank you for your deep-thinking questions. Based on your questions, we would like to 2. The randomly make the following explanation: selected of the participants used of (1) A cluster sampling of 283 family doctors was used in the questionnaire. which method of (2) A purposive sample of 30 family doctors selection such from the same CHCs was selected during the same period. as simple random sampling or purposive sampling? Thank you for your valuable questions. Results Currently, family doctors Abstract: Based on your questions, we have rewrote provided various services to satisfy Result: the results section to answer the research the health needs of disabled older questions align with the research objective adults, while the utilization of FDCS 1.The first sentence for disabled older adults are affected and present according to the data that of the result, what is delivered from the quantitative or qualitative by many factors. The differences of this result come from approach.(Page 2, Line 33) the importance of family doctors' which methodology? role(P<0.001) and service satisfaction (P=0.004) were significant among four districts. Compared with contracted health senior citizen, this study has identified five unique roles of family doctors, including "psychological consultant", "rehabilitation physiotherapist", "health educator", "health manager", and "family health guardian". Moreover, family doctors are confronted with a myriad of barriers (including high risks in the process of home visits, a lack of supervisory and incentive mechanisms, insufficiency of time and energy, etc) and facilitators (including establishing a doctor-

patient trust relationship, developing humanistic care services, etc) in the FDCS for disabled older adults. Abstract: Results Currently, family doctors Thank you for your thoughtful questions. Based on your questions, we have rewrote provided various services to satisfy Result: the results section to answer the research the health needs of disabled older questions align with the research objective adults, while the utilization of FDCS 2. The results need for disabled older adults are affected and present according to the data that to be rewrite to delivered from the quantitative or qualitative by many factors. The differences of answer the research approach.(Page 2, Line 33) the importance of family doctors' questions align with role(P<0.001) and service the satisfaction (P=0.004) were significant among four districts. research objective Compared with contracted health and present senior citizen, this study has according to the data identified five unique roles of family that delivered from doctors, including "psychological the consultant", "rehabilitation physiotherapist", "health educator", quantitative or "health manager", and "family health qualitative approach. guardian". Moreover, family doctors are confronted with a myriad of barriers (including high risks in the process of home visits, a lack of supervisory and incentive mechanisms, insufficiency of time and energy, etc) and facilitators (including establishing a doctorpatient trust relationship, developing humanistic care services, etc) in the FDCS for disabled older adults. Abstract: Conclusions Family doctors play a Thank you for your in-depth thinking, we have carefully checked content in the pivotal role in the FDCS for disabled Conclusion: conclusion section and found some older adults, while the effect and sentences in the conclusion section may be quality of FDCS in China needs to be 1:How does the not suitable here. It has following reasons: improved. It is suggested that further author conclude this research needs to focus on solving sentence? What are (1) "The results that show the relationship of existing barriers of FDCS to optimize the results that show barriers and roles" this comment is not the health of disabled older adults the relationship of mentioned in the previous results, so it's and improve the quality of their lives. difficult in smoothly understanding the barriers and roles? meaning of authors. (2) "The results that show the relationship of barriers and roles", which doesn't like a summary of the full text but like a results. Therefore, we have reorganized the words and sentence, and revised the conclusion sections of our manuscript. (Page 2, Line 43)

Abstract:	Thank you for your valuable suggestions.	Keywords: barriers, contract
Aboliuot.	We have carefully checked the keywords	services, disabled older adults,
Keywords:	with MeSH, and rearranged the keywords in	facilitators, family doctors, roles
Check the keywords with MeSH	alphabetical order. (Page 2, Line 47)	
Value added:	We are very sorry to display "What is	Strengths and Limitations
1. The heading of "What is already known on this topic" need to be present on the	already known on this subject, What this study adds, and How this study might affect research, practice or policy" these content in this section. After we read Author Guidelines and	1.This study is the first time to identify the roles of family doctors in FDCS for disabled older adults in Beijing.
variables that interest of this study such as the already known on family doctor contact services, responsibility of family doctors, and challenge and opportunities of FDs in providing of care to disabled older adult.	compared with other literature which published on BMJ Open, we found this section after the abstract section should write the Strengths and limitations. Therefore, we have revised our manuscript to align with the requirements of the editors.	 2.This study has discovered the interests and demands of family doctors as well as potential obstacles and enablers in the implementation of FDCS for disabled older adults. 3.This study has examined many aspects of the current FDCS for disabled older adults in Beijing, and enriched the international discussion of similar topics. 4.This study were collected data from one sector of healthcare provider does not cover the perspective of all stakeholders in FDCS. 5.The representativeness of this study was limited since only a sample of family doctors in 4 districts
Value added:	We are very sorry to display " What is	chosen from 16 in Beijing. Strengths and Limitations
2. The heading of "What does this study add" need to be present on	already known on this subject, What this study adds, and How this study might affect research, practice or policy" these content in this section.	1.This study is the first time to identify the roles of family doctors in FDCS for disabled older adults in Beijing.
new knowledge from this study rather than a broad concept that can be review from	After we read Author Guidelines and compared with other literature which published on BMJ Open, we found this section after the abstract section should write the Strengths and limitations. Therefore, we have revised our manuscript	2. This study has discovered the interests and demands of family doctors as well as potential obstacles and enablers in the implementation of FDCS for disabled older adults.
the literature.	to align with the requirements of the editors.	3. This study has examined many aspects of the current FDCS for disabled older adults in Beijing, and enriched the international discussion of similar topics.

4. This study were collected data from one sector of healthcare provider does not cover the perspective of all stakeholders in FDCS. 5. The representativeness of this study was limited since only a sample of family doctors in 4 districts chosen from 16 in Beijing. Value added: We are very sorry to display "What is Strengths and Limitations already known on this subject, What this 3. The heading of 1. This study is the first time to study adds, and How this study might affect "How this study identify the roles of family doctors in research, practice or policy" these content might affect FDCS for disabled older adults in in this section. research, practice or Beijing. policy" need to be After we read Author Guidelines and 2. This study has discovered the compared with other literature which present on the interests and demands of family published on BMJ Open, we found this specific area of doctors as well as potential obstacles section after the abstract section should research, practice, and enablers in the implementation write the Strengths and limitations. and policy based on of FDCS for disabled older adults. Therefore, we have revised our manuscript the new to align with the requirements of the editors. 3. This study has examined many knowledge from this aspects of the current FDCS for study such inform disabled older adults in Beijing, and enriched the international discussion policy maker to allocated resources of similar topics. on 4. This study were collected data from training of family one sector of healthcare provider doctor or.... etc does not cover the perspective of all stakeholders in FDCS. 5. The representativeness of this study was limited since only a sample of family doctors in 4 districts chosen from 16 in Beijing. Introduction: Thank you for your comprehensive As a core component of the primary comments. According to your nice healthcare system, FDCS is the most 1.What are the roles suggestions, we have improved our available health care services to of responsibility of manuscript in following steps. cater to older adults' long-term care family doctor in needs in China. Like other developed developed and (1) Used "roles", "responsibility", "family countries, such as US, UK and "general doctors", "family physician", developing Germany, family doctors play a more practitioner", "GP" etc. as key words to and more vital role in the primary search related studies on PubMed, Web of country? care system . As the gatekeeper of Science.

> (2) Read relevant literature to understand the roles of family doctors in developed and

> (3) Found that Like other developed

countries, such as US, UK and Germany,

family doctors in China play a more and

more vital role in the primary care system.

developing country.

residents' health, family doctors play

six roles in the primary care system,

resource allocation, surveillance and

including triage and treatment,

monitoring, preventive care,

integrated care, and continuity of

As the gatekeeper of residents' health, family doctors play six roles in the primary care system, including triage and treatment, resource allocation, surveillance and monitoring, preventive care, integrated care, and continuity of care.

(4) According to our findings, we have revised our introduction section. (Page 4, Line 107)

care. By utilizing FDCS, family doctors in CHCs establish a long-lasting, ongoing, and stable contractual relationship with disabled older adults. And it is natural to provide medical care, and essential public health management services for them, including establishing health records, physical examinations, chronic disease follow-ups, etc......

Introduction:

2. What is the country policy on this group both the social care and health care?

Thank you for your nice suggestions, we have modified our manuscript in following steps.

- (1) Searched laws and policies related to disabled older adults from the Chinese People's Government and other relevant official websites.
- (2) Focused on the country polices on disabled older adults both the social care and health care.
- (3) Combined relevant polices to in line with our themes, and supplemented them into our manuscript. (Page 3, Line 86)

To address the challenges of rapid growth and massive demand of the older adults with disability. China has released a series of policies. The Law of the People's Republic of China on the Protection of the Rights and Interests of Elderly(2012), which clearly stated that local government at all levels should give care subsides to older adults who are unable to take care of themselves for a long time or have difficulties in finance based on their disability level. In 2016, the State Council Medical Reform Office and other seven ministries launched the Guiding Opinions on Promoting Family Doctor Contract Services(FDCS), it marked the formal implementation of FDCS in China and had a positive significance for enhancing the health level of community residents and achieving the goal of hierarchical diagnosis treatment. The National Health Commission in 2019 gave further guidance on FDCS, which required family doctors to provide door-to-door medical and health services for disabled older adults, terminally ill patients and other people who are in urgent need, and extend the contracted services from institutions to communities and families. In 2022, the State Council issued a guideline to promote the development of national undertakings for the aged and improve the elderly care service system during the 14th Five-Year Plan period (2021-2025), which encouraged medical and

health institutions providing FDCS such as family care beds or home visits to solve the basic care needs of disabled older adults. With relevant policies on disabled older adults released in recent years, the living conditions and lives quality of disabled older adults have improved. However, currently, China has not yet established a long-term care system for disabled older adults due to lots of factors, such as lack of qualified professionals, limited service types, and unrealized integrated care, etc......

Introduction:

3.What is the magnitude of problems in utilizing FDCS?

Thank you for your comprehensive suggestions. According to your nice suggestions, we have revised our manuscript in following steps.

- (1) Read relevant literature to understand the magnitude of problems in utilizing FDCS among different countries.
- (2) Sorted out and analyzed the main problems in the family doctor contract service and found that the urgency of addressing the issues of family doctor contract service.
- (3) Supplemented the issues into our introduction section.(Page 4, Line 119)

Although the number of contracted residents is increasing every year, the overall performance of utilizing FDCS at CHCs is in a bad condition. Previous studies have shown that FDCS is plagued with severe problems, such as lack of community health resources, the shortage of family doctors, the low awareness of contracted residents to FDCS, and the absence of supporting policies, which results in the actual utilization of FDCS has not increased......

Introduction:

4.What are the problems of utilizing of family doctor contact services, the problems of

responsibility of family doctors, and the challenge of FDs in providing of care to

disabled older adult?

Thank you for your comprehensive suggestions. According to your nice suggestions, we have revised our manuscript in following steps.

- (1) Read relevant literature to understand the problems of utilizing of family doctor services, the problems of roles of family doctors, and the challenge of family doctors in providing of care to disabled older adults. (2) Sorted out and analyzed the main problems in the family doctor contract service and found that the urgency of addressing the issues of family doctor contract service.
- (3)Through describing the issues of above problems in our manuscript to manifest the urgency of dealing with the issues of family doctor contract service. (Page 4, Line 120)

Although the number of contracted residents is increasing every year, the overall performance of utilizing FDCS at CHCs is in a bad condition. Previous studies have shown that FDCS is plagued with severe problems, such as lack of community health resources, the shortage of family doctors, the low awareness of contracted residents to FDCS, and the absence of supporting policies, which results in the actual utilization of FDCS has not increased......

Meanwhile, the current effect of utilizing FDCS for disabled older adults is not obvious in Beijing due to limited medical resources, less service types of FDCS, and low contract spirit between doctors and patients...... However, no previous

study has explored the roles of family doctors in the process of providing FDCS for disabled older adults, and there is less research to figure out what barriers and facilitators of FDCS will have in the process of caring for disabled older adults based on the viewpoints of healthcare providers..... Introduction: Thank for your in-depth thinking, we have The Barriers and Facilitators of carefully thought your comments and Family Doctor Contract Services in 5. Reconsider on the revised our manuscript in following steps. Caring for Disabled Older Adults in word "elderly" that Beijing, China: A Mixed Methods reflect ageism. (1) According to Reframing Aging Initiative(a Rewrite the word guide to avoid ageism), we have reconsidered the word like "elderly", and such as the To evaluate the current state of replaced it as older adult and the senior family doctor contract citizen in the whole article. older adult or the services(FDCS) in Beijing, identify senior citizen. the roles of family doctors who have worked with disabled older adults and investigate the challenges and opportunities faced by family doctors BEST PRACTICES in providing care for them. Beijing, as a typical example, is Reframing Aging Initiative characterized by advanced age and Guide to Telling a More Complete Story of Aging a high disability rate. In 2021, there are about 205,000 disabled older adults in Beijing, the disability rate of the senior citizen is 4.78% and the older adults with moderate or severe disability account for 70% of the (2) Tried to use more neutral and inclusive whole disabled older adults..... terms in other manuscript. (3) Avoid using general terms such as "people over 65" when more specific To solve the dilemma of FDCS and let family doctors provide more high information is available. quality services for disabled older (4) Avoid using the word ageism without explanation. adults, this study is the first to identify the roles of family doctors contracted with disabled older adults in Beijing and investigated the barriers and facilitators of utilizing FDCS from the perspectives of family doctors..... Introduction: Thank you for your valuable questions, we / have carefully thought your question and 6. What are the answered in this way. methods to screen the older adult Disabled older adults in Beijing are functions that evaluated uniformly by the Beijing Municipal classified them in Bureau of Civil Affairs. The assessment of the disabled older adults firstly is applied by

the senior citizen or their family members.

active, semi disable and disabled?

then assessed by professionals from health institutions according to the "Implementation Measures for Comprehensive Assessment of the Ability of the Elderly in Beijing". The assessment focuses on older adults who are unable to take care of themselves due to injury, illness, disability, infirmity, etc., as well as those people who have a clear medical diagnosis and they are still unable to take care of themselves after more than six months of treatment. Finally, according to the results of the assessment, older adults are classified into active, semi disable and disabled.

Meanwhile, the current effect of utilizing FDCS for disabled older adults is not obvious in Beijing due to limited medical resources, less service types of FDCS, and low contract spirit between doctors and patients.

Introduction

7. What are the problems regarding current state of Family doctor contract services

(FDCS) such the shortage of FDs, the skills or etc in Beijing? What are the

implication of this research?

Thank you for your comprehensive questions. Based on your questions, we have we have revised our manuscript in following steps.

- (1) Reviewed relevant literature to know the problems regarding current state of family doctors contract services.
- (2) Combined with the implementation of family doctor contract services in other countries or regions, and found the shortage of family doctor contract services in Beijing.
- (3) Discussed with all the members of our research team to define the implication of this study.
- (4) According to your questions, supplemented the current state of family doctor contract services, especially the problems in Beijing to introduction section.(Page 5, Line 123)
- (5) Added the implication of this research in our manuscript. (Page 5, Line 129)

Family doctors, as ideal medical service providers, are expected to take a pivotal role in the provision of medical care services for the disabled older adults and meet the disabled older adults' diversified needs. However, no previous study has explored the roles of family doctors in the process of providing FDCS for disabled older adults, and there is less research to figure out what barriers and facilitators of FDCS will have in the process of caring for disabled older adults based on the viewpoints of healthcare providers. To solve the dilemma of FDCS and let family doctors provide more high quality services for disabled older adults, this study is the first to identify the roles of family doctors contracted with disabled older adults in Beijing and investigated the barriers and facilitators of utilizing FDCS from the perspectives of family doctors.

Methods

1. Describe the setting and the

Thank you for your valuable comments, we have carefully thought your suggestions

4 districts of Beijing (2 from urban areas, namely Xicheng District, Fengtai District; 2 from rural areas, namely Daxing District, and Huairou

reason for conducted research in this setting

and improved our manuscript in following steps.

- (1) The four districts of Beijing we selected based on the level of economic development and the linear distance from Tiananmen Square.
- (2) Described the special characteristics of each district and the reason for conducted research in these setting.

District) were selected based on the level of economic development and the linear distance from Tiananmen Square. The prominent feature of Xicheng District is the functional core area of Beijing. As one of six urban districts of Beijing, Xicheng District is the core bearing area of political center and cultural center, the protection of famous historical and cultural city, and also is "an important window" to reflect the national image and international communication. Fengtai District is the central city area of Beijing. It is positioned as " an important guarantee area for supply high quality life services in the capital" from the Beijing City Master Plan. Daxing District is located in the southeast of Beijing, which is an important base of agricultural and sideline food production. Huairou District is one of rural areas of Beijing, located in the northeast of cities. It has many mountains, which formed the natural barrier of Beijing. Huairou District also is called the Green Great Wall of Beijing.

Methods

2. What is the method that integrate the data from quantitative to qualitative phase?

Thank your for your nice questions, after an extensive review of relevant literature and repeated discussion by our research team, we have defined the integration strategies in this study. It is connecting the results of the quantitative phase to data collection of the qualitative phase.

Convergent mixed methods were used in data collection and the analytical process.

In this study, the quantitative phase and qualitative phase are conducted in parallel and then integrated. The integration strategies in this study was connecting the results of the quantitative phase to data collection of the qualitative phase. By using quantitative method to understand the current status of FDCS in caring for disabled older adults and the main factors which affect family doctors to provide contracted services for disabled older adults. Then based on the results of the quantitative phase, this study further explored the roles of family doctors and barriers and facilitators of FDCS in caring for disabled older adults. In this study, using both quantitative and qualitative results will provide a

		better understanding of the roles and challenges faced by family doctors in the process of providing contracted services for disabled older adults and the factors associated with better quality of FDCS for disabled older adults.
Methods 3.The instrument used; data analysis technique needs to be move due to it is not relevant to this heading.	Thank you for your valuable comments. We have carefully thought your suggestions and improved our manuscript in following steps. (1)Discussed with all the members of our research team to refine the research method and re-identify the instrument and data analysis technique used in this study. (2)Standardized the language expression of the method section to avoid causing ambiguity. (3)Deleted some instrument and data analysis techniques and let the content related to the heading.	
Methods 4.What is the amount of population?	Thank you for your thoughtful question. We have carefully thought your question and answered in this way. (1) There were a total of 283 family doctors participating in this study by using cluster sampling method.	Methods A cluster sampling of 283 family doctors was used in the questionnaire. A purposive sample of 30 family doctors from the same CHCs was selected during the same period. In the third stage, due to 3~5 family doctor teams in each CHC, and the family doctor team was composed of three medical-nursing-prevention personnel, so all the family doctor teams were selected by using cluster sampling method. There were a total of 283 family doctors participating in this study. At the same period, 2~3 family doctors were selected from 15 CHCs by purposive sampling method and joined in-depth interview.
Methods 5. What is the sample size calculation?	Thank you for your valuable question. We have carefully thought your question and answered in this way. Stratified random sampling method and cluster random sampling method were used in different stages of our research.	First, through stratified random sampling method, we selected four districts of Beijing based on the level of economic development and the straight-line distance of Tiananmen. Then, 3~4 CHCs were selected in each district based on the status of utilizing family doctor contract

	First, through stratified random sampling method, we selected four districts of Beijing based on the level of economic development and the straight-line distance of Tiananmen. Then, 3~4 CHCs were selected in each district based on the status of utilizing family doctor contract services, a total of 15 CHCs participated in our research. In the third stage, due to 3~5 family doctor teams in each CHC, and the family doctor team was composed of three medical-nursing-prevention personnel, so all the family doctor teams were selected by using cluster sampling method. There were a total of 283 family doctors participating in this study. At the same period, 2~3 family doctors were selected from 15 CHCs by purposive sampling method and joined indepth interview. Lastly, the research team(one graduate tutor and three graduate students) went to each sampling CHC to conduct this study	services, a total of 15 CHCs participated in our research. In the third stage, due to 3~5 family doctor teams in each CHC, and the family doctor team was composed of three medical-nursing-prevention personnel, so all the family doctor teams were selected by using cluster sampling method. There were a total of 283 family doctors participating in this study. At the same period, 2~3 family doctors were selected from 15 CHCs by purposive sampling method and joined in-depth interview. Lastly, the research team(one graduate tutor and three graduate students) went to each sampling CHC to conduct this study
Methods 6. What are the sampling methods used: nonprobability sampling or probability sampling?	Thank you for your valuable question. We have carefully thought your question and answered in this way. (1)There were a total of 283 family doctors participating in this study by using cluster sampling method. (2) 2~3 family doctors were selected from 15 CHCs by purposive sampling method and joined in-depth interview	A cluster sampling of 283 family doctors was used in the questionnaire. A purposive sample of 30 family doctors from the same CHCs was selected during the same period.
Methods 7. What are the qualifications of the research assistant and how many of them?	Thank you for your valuable question. In our research, the education background of the research assistant is bachelor degree and above. There are 7 undergraduates and 3 graduate students in our research team. In general, one graduate tutor and three graduate students have formed a field research team.	Lastly, the research team(one graduate tutor and three graduate students) went to each sampling CHC to conduct this study.
Methods 8. Separate the data collection of quantitative and qualitative phase to make the	Thank you for your nice suggestions. We have carefully thought your comment and improved our manuscripts. (1)Discussed with all the members of our research team to refine the research	2.2 Quantitative Phase Under the national and Beijing's relevant policies of FDCS for disabled older adults, the research team has considered the humanistic environment, regional characteristics and the actual situation of the

reader understand the method of data collection. This heading indicates "2.2

Quantitative Phase Data Collection and Subjects" however the author present both

of quantitative and qualitative.

method and re-identify the instrument and data analysis technique used in this study.

- (2) Reviewed some valuable literature of yours and cited them into our manuscript, and standardized the language expression of the method section to avoid causing ambiguity.
- (3)Separated the data collection of quantitative and qualitative phase to make the reader understand the method of data collection. (Page 7, Line 136& Page 8, Line 232)

contracted services in Beijing and compiled a self-designed questionnaire after an extensive review of relevant literature and repeated discussion by panel experts. The questionnaire was revised based on feedback from a pretest performed in one CHC. Moreover, the questionnaire design and the whole process of questionnaire exploring were applied the Guideline Implementation Planning Checklist developed by Gagliardi et al.

2.3 Qualitative phase

2.3.1 Sampling and Interviews

The sampling strategies applied in this stage were purposive sampling. At the start of this research, purposive sampling was used to selected family doctors who met the following inclusion criteria:1) family doctors, 2) contracted with disabled older adults, 3) engaged in the related work for disabled older adults at least 5 years. The exclusion criteria was that family doctors were unwilling to participate or not able to cooperate with the research. The research team initially connected with 15 managers of CHCs by telephone, email, WeChat to confirm the time, place and the number of family doctors who may accepted interview. Then, the manager of CHC provides a list containing contact information of family doctors who meet the eligibility criteria and their contact information. The research team members contact the intended interviewees and provide a detailed introduction to the research purpose. Finally, 30 family doctors have informed consent and voluntarily participate in the interview. The ethics approval was given by the Medical Ethics Committee of Capital Medical University.

Methods

9. What are the inclusion criterions of the sample in the quantitative phase?

Thank you for your valuable question. We have carefully thought your question and answered in this way.

The inclusion criteria of the questionnaires were as follows:1) family doctors, 2) contracted with disabled older adults, 3) engaged in the related work for disabled older adults more the 6 months.

We have supplemented above inclusion criteria in the qualitative phase. (Page 8,Line 217& Page 8, Line 234)

2.2.2 Data collection

The inclusion criteria of the questionnaires were as follows:1) family doctors, 2) contracted with disabled older adults, 3) engaged in the related work for disabled older adults more the 6 months. A random sample of 283 family doctors participated in the questionnaire survey in the 15 selected CHCs, among which 90% are the center's registered doctors. The returned questionnaires with invalid data were to the exclusion of data analysis, and hence final samples of 276 were gathered..

Methods

10. Separate the data collection of quantitative and qualitative phase to make the

reader understand the method of data collection. Thank you for your nice suggestions. We have carefully thought your comment and improved our manuscripts.

- (1)Discussed with all the members of our research team to refine the research method and re-identify the instrument and data analysis technique used in this study.
- (2) Reviewed some valuable literature of yours and cited them into our manuscript, standardized the language expression of the method section to avoid causing ambiguity.
- (3) Separated the data collection of quantitative and qualitative phase to make the reader understand the method of data collection.

2.2 Quantitative Phase

Under the national and Beijing's relevant policies of FDCS for disabled older adults, the research team has considered the humanistic environment, regional characteristics and the actual situation of the contracted services in Beijing and compiled a self-designed questionnaire after an extensive review of relevant literature and repeated discussion by panel experts. The questionnaire was revised based on feedback from a pretest performed in one CHC. Moreover, the questionnaire design and the whole process of questionnaire exploring were applied the Guideline Implementation Planning Checklist developed by Gagliardi et al.

- 2.3 Qualitative phase
- 2.3.1 Sampling and Interviews

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at least 5 years. The exclusion criteria was that family doctors were unwilling to participate or not able to cooperate with the research. The research team initially connected with 15 managers of CHCs by telephone, email, WeChat to confirm the time, place and the number of family doctors who may accepted interview. Then, the manager of CHC provides a list containing contact information of family doctors who meet the eligibility criteria and their contact information. The research team members contact the intended interviewees and provide a detailed introduction to the research purpose. Finally, 30 family doctors have informed consent and voluntarily participate in the interview. The ethics approval was given by the Medical Ethics Committee of Capital Medical University.

Methods

11. Who are the key informants in collecting data of qualitative phase?

Thank you for your thoughtful question. We have carefully thought your question and answered in this way.

By using purposive sampling, family doctors who have excellent experience to family doctor contract service for disabled older adults are the key informants in collecting data of qualitative phase.

The sampling strategies applied in this stage were purposive sampling. At the start of this research, purposive sampling was used to selected family doctors who met the following inclusion criteria:1) family doctors, 2) contracted with disabled older adults, 3) engaged in the related work for disabled older adults at least 5 years.

Methods

12. What are the sampling methods of the participant in the qualitative phase?

Thank you for your thoughtful question. We have carefully thought your question and answered in this way.

The sampling strategies applied in this qualitative stage were purposive sampling. At the start of this research, purposive sampling was used to selected family doctors who met the following inclusion criteria:1) family doctors, 2) contracted with disabled older adults, 3) engaged in the related work for disabled older adults at least 5 years. The exclusion criteria was that family doctors were unwilling to

The sampling strategies applied in this qualitative stage were purposive sampling. At the start of this research, purposive sampling was used to selected family doctors who met the following inclusion criteria:1) family doctors, 2) contracted with disabled older adults, 3) engaged in the related work for disabled older adults at least 5 years. The exclusion criteria was that family doctors were unwilling to participate or not able to cooperate with the research.

participate or not able to cooperate with the research. Methods Thank you for your valuable question. We The research team initially connected have carefully thought your question and with 15 managers of CHCs by 13. What are the telephone, email, WeChat to confirm answered in this way. approaches used to the time, place and the number of contact the sample The research team initially connected with family doctors who may accepted and participant in 15 managers of CHCs by telephone, email, interview. Then, the manager of CHC collecting WeChat to confirm the time, place and the recommended two family doctors number of family doctors who may who had a high degree of data such as invited accepted interview. Then, the manager of understanding FDCS for disabled by the researcher or CHC recommended two family doctors who older adults participate in our coordinate with the had a high degree of understanding FDCS interview. After an expression of director and got the for disabled older adults participate in our interest, there are 30 family doctors interview. After an expression of interest, participated in our study and received name list of there are 30 family doctors participated in study descriptions and consent sample/participant our study and received study descriptions forms. Family doctors are required to then communicate and consent forms. Family doctors are read the informed consent form and via email and make required to read the informed consent form obtain consent, and took part in our appointment and obtain consent, and took part in our interview. interview. for data collection. Describe the technique used. Methods Thank you for your valuable comments. We Methods A cluster sampling of 283 have carefully thought your suggestions family doctors was used in the 14. Number of and improve our manuscripts in following questionnaire. A purposive sample of participants in 30 family doctors from the same steps. qualitative did not CHCs was selected during the same (1) There are a total of 30 family doctors present. period..... participated in our study. (2) We have supplemented this information in the abstract section, method section and results section. Finally, 30 family doctors have informed consent and voluntarily participate in the interview...... Methods Thank you for your nice question. We have To explore the status of FDCS for carefully thought your question and disabled older adults in Beijing, the 15. What is the answered in this way. questionnaire consisted of four process of sections. The first part was a total of development the (1) The process of development the four questions regarding questionnaire: under the national and questionnaire, how demographic characteristics of family Beijing's relevant policies of FDCS for many parts, what is doctors, including gender, age, disabled older adults, the research team has the education level and position title. The considered the humanistic environment, second part was the utilization of regional characteristics and the actual format of scale? situation of the contracted services in Beijing family doctor contract services for and compiled a self-designed questionnaire disabled older adults. It consisted of after an extensive review of relevant

literature and repeated discussion by panel

experts. The questionnaire was revised

four multiple choice questions: 1) the

type of contract services that family

doctors provided for disabled older

based on feedback from a pretest performed in one CHC. Moreover, the questionnaire design and the whole process of questionnaire exploring were applied the Guideline Implementation Planning Checklist developed by Gagliardi et al. (2) The questionnaire consisted of four sections, each section includes 3~5 questions. There are a total of 15 questions in this study.

adults; 2) the top three services that disabled older adults needed most from the perspective of family doctors; 3) the most concerning factors of disabled older adults while family doctors providing medical services; 4) the main factors that affect family doctors to provide contracted services for disabled older adults. Respondents needed to list the top three answers in question 2 and question 4. The third part was the workload for home visits by family doctors, to describe the workload of home visits by family doctors, three aspects were taken into consideration: 1) the frequency per year of home visits provided by each family doctor for disabled older adults; 2) the treatment time in hours quantified the time of treatment for each home visit. 3) the workload for home visits by family doctors was calculated by multiplication of the treatment time with the frequency per year. The final part was the performance evaluation of family doctor contract services based on family doctors, which included three multiple choice questions: 1) the cooperation frequency of disabled older adults and their families when family doctors operate home visits service; 2) the importance of family doctors' role in the FDCS for disabled older adults; 3) the extent to which FDCS meet the medical needs of disabled older adults.

Methods

16. The instrument used is the open-end questions and it needs to be aligned with the

data analysis. How did the author analyze of the openend questions? Thank you for your nice question. We have carefully thought your question and answered in this way.

We are so sorry for that maybe some sentences in our manuscript have confused you. The instruments used in our questionnaire are not open-end questions. Therefore, we used the statistical approach mentioned in the method section to analyze the quantitative data.

Methods

17. Heading: 2.2.2.3 FDs' evaluation of contracted services for the disabled elderly. Is

this instrument present as the questionnaire or open-end questions or etc....? Thank you for your nice question. We have carefully thought your question and answered in this way.

- (1)Heading: 2.2.2.3 FDs' evaluation of contracted services for the disabled elderly, which is a section of questionnaire.
- (2)After discussed with all the member in our research team, we found the word "FDs' evaluation" may not suitable to express our initial intention, so we changed "FDs' evaluation of contracted services for the disabled elderly" into "the performance evaluation of family doctor contract services based on family doctors".

The final part was the performance evaluation of family doctor contract services based on family doctors, which included three multiple choice questions: 1) the cooperation frequency of disabled older adults and their families when family doctors operate home visits service; 2) the importance of family doctors' role in the FDCS for disabled older adults; 3) the extent to which FDCS meet the medical needs of disabled older adults.

Methods

18. Identify the independent and dependent variable that used these statistics due to several of variables to make the reader understand this analysis.

Thank you for your nice question. We have carefully thought your comments and answered in this way.

- (1) After discussed with the members of our research team, we found that many independent and dependent variables were not involved in this study.
- (2) To measure the performance evaluation of family doctor contract services based on family doctors, we identified the independent was different regions and the dependent variable was cooperation frequency of disabled older adults and their families, importance of family doctors' role and the extent to which FDCS meet the medical needs of disabled older adults.(Page7,Line 210)

The final part was the performance evaluation of family doctor contract services based on family doctors. which included three multiple choice questions: 1) the cooperation frequency of disabled older adults and their families when family doctors operate home visits service; 2) the importance of family doctors' role in the FDCS for disabled older adults; 3) the extent to which FDCS meet the medical needs of disabled older adults. To measure the performance evaluation of family doctor contract services based on family doctors, we identified the independent was different regions and the dependent variable was cooperation frequency of disabled older adults and their families, importance of family doctors' role and the extent to which FDCS meet the medical needs of disabled older adults.

Methods

19. What is the multiple comparison used after the significant of KW test?

Thank you for your nice question. We have carefully thought your comments and answered in this way.

We used the Least Significant Difference method (LSD) to compare between-group differences in FDCS across regions. Data analysis: Frequency and rank were applied to display the quantitative data of family doctors including demographic characteristics, gender, age, regions, education and positional title, rank sum test was used to analyze the content of the performance

evaluation of FDCS based on family doctors, in which Wilcoxon rank sum test pointed to for two groups and Kruskal-Wallis test (K-W test) for multiple groups. After K-W test, we usedLeast Significant Difference method (LSD) to compare pairwise Methods Thank you for your nice question. We have The research team has discussed carefully thought your comments and the rationality and appropriateness of 20. What are the answered in this way. each question, and the content methods to confirm validity of the questionnaire was the validity and The research team has discussed the tested by an expert with extensive reliability of the rationality and appropriateness of each experience in FDCS and an clinical instrument in questions, and the content validity of the expert who work in a CHC. After questionnaire was tested by an expert with experts' feedback, a pilot study was quantitative phase? extensive experience in FDCS and an conducted in a CHC with 40 samples clinical expert who work in a CHC. After twice within a 2-week interval to experts' feedback, a pilot study was check reliability of the questionnaire. conducted in a CHC with 40 samples twice The 40 samples were same within a 2-week interval to check reliability population and they have same of the questionnaire. The 40 samples were characteristics as those used in the same population and they have same present study. The test-retest characteristics as those used in the present reliability coefficient after 2 weeks study. The test-retest reliability coefficient was 0.73. after 2 weeks was 0.73. (Page 8, Line 214) **Qualitative phase** Thank you for your valuable question. We In the third stage, ... At the same have carefully thought your questions and period, 2~3 family doctors were 21. How to approach answered in this way. selected from 15 CHCs by purposive the participants? sampling method and joined in-depth How many In each community health service center, interview. participants the research team selected family doctors approach and how with rich family work experience (such as many having engaged in related work for more than 5 years or more) as the interviewees, of them declined and introduced their research objectives, and come up with the invited them to participate in the study. participants who Finally, a total of 30 family doctors agree to participate? participated in face-to-face interviews. **Qualitative phase** Thank you for your valuable question. We All the interviewers have received a have carefully thought your questions and unified standard training in advance, 22. What is this bias answered in this way. so as to avoid the induced problems called? and reduce research subjective There is a certain degree of research bias biases. Before the interview, the in qualitative research, and the subjective interviewee introduced the research bias of interviewers is one of the common purpose, methods, content and types. This means that when the research confidentiality principles to the team contacts participants, it may raise interviewees in detail, and obtained inductive questions to guide them to give informed consent positive answers. Therefore, in order to reduce subjective bias, research team

	members underwent unified training and learning before the start of the study.	
Qualitative phase 23. Verbatim the transcript not the conversation during interview. During the interview, the interviewee or the research assistant note (Field note) for the main issue and after completing the interview verify the content by them. The notes were used to compare with the verbatim transcription. Due to a verbatim transcript captures every single spoken word in the recording and puts it into text	Thank you for your thoughtful question. We have carefully thought your questions and answered in this way. The research assistant records the dialogue verbatim during the interview, and invites the interviewees to verify their main points of view after the interview is completed. The interviewers combine the interview recording to capture their oral language and convert it into text.	During the interview, the interviewee or the research assistant note (Field note) for the main issue and after completing the interview verify the content by them. The notes were used to compare with the verbatim transcription. Due to a verbatim transcript captures every single spoken word in the recording and puts it into text.
Qualitative phase 24. What is the trustworthiness used in this study?	Thank you for your comprehensive question. We have carefully thought your questions and answered in this way. To ensure the trustworthiness of the definitive study, the research team invited an expert group to conduct three rounds of discussion, determine the interview outline, and select two directors of the community health service center for pre-interview. In addition, before the formal interview begins, the research team selected a quiet and independent place to inform the interviewee of the research purpose in detail and gain their trust in order to obtain a true answer.	The interview outline formulated based on an extensive review of relevant literature and repeated discussion by panel experts. And two participants were also invited to conduct pre interviews before the formal interview to ensure the integrity of the outline content. The content of the interview outline contained the demographic characteristics of family doctors, the differences of health management between contracted healthy senior citizen and disabled older adults, and the barriers and facilitators of FDCS for disabled older adults.
Result	Thank you for your nice question. We have carefully thought your comments and described the method of ranking by the	After ranking above services by proportion of person time by month hour, this study has shown that

25. Table 2: Describe the method of ranking such as ranking by the proportion of person time by	proportion of person time by month hour. (Page 13, Line 11)	primary care is the most common services for disabled older adults, following by health consultation and education, and medication examination.
month hour		
Result 26. Table 4: Chi square? Is this statistics present in the data analysis?	Thank you for your nice question. We have carefully thought your comments and answered in this way. Actually we didn't use Chi square in our study, χ^2 in the table 4 is the results of sum rank test.	
Result	Thank you for your nice comment. We have	
07.14/1	carefully thought your nice suggestions,	Table 4 The performance evaluation of family doctor contract services based on family
27. What is the result	completed the statistics we used in the	doctors .
of KW test? Provide	Table 4, and supplemented useful	
the statistics used	information under the table.	Xicheng Fengtei Dezing Husiron
under the table.		District District District District District (n=55) (n=69) (n=59)
		Cooperation frequency of disabled older adults and their families N (%) Always 15 (27.2) 23 (24.7) 25 (36.2) 8 (13.6) 71 (25.7)
		Usually 8 (14.5) 15 (16.1) 5 (7.2) 10 (16.9) 38 (13.8)
		Often 24 (43.6) 43 (46.2) 33 (47.8) 33 (55.9) 133 (48.2) Saldom 4 (7.2) 10 (10.8) 6 (8.7) 7 (11.9) 27 (9.8)
		Never 4 (7.2) 2 (2.2) 0 (0) 1 (1.7) 7 (2.5)
		Mean Rank 126.43 130.83 166.85 128.69 x=4.394, P=0.222
		Mean Real* 138.27 138.77
		x=0.003, P=0.955 Importance of family doctors' role N (%)
		Less timportant 5 (9,1) 4 (4,3) 1 (1.4) 3 (5.1) 10 (3.5) Less important 4 (7,3) 6 (6.5) 2 (2.9) 22 (37.3) 18 (6.5)
		Important 12 (21.8) 31 (33.3) 24 (34.8) 28 (47.5) 95 (34.4)
		More important 25 (45.5) 42 (45.2) 28 (40.6) 6 (10.2) 117 (42.4) Most important 9 (16.4) 10 (10.8) 1 (1.4) 0 (0) 36 (13.0)
		Mean Rank 152.79 148.35 142.96 76.44 **=45.938. P<0.001
		Mean Renk ^b 150.00 108.83
		$x^i=21.220$, $P=0.001$ The extent to which FDCS meet the medical needs of disabled older adults N (%)
		Least satisfactory 12 (21.8) 7 (7.5) 5 (7.2) 6 (10.2) 30 (10.9) Less satisfactory 12 (21.8) 32 (34.4) 11 (15.9) 19 (32.2) 74 (26.8)
		Satisfactory 23 (41.8) 46 (49.5) 34 (49.3) 29 (49.2) 132 (47.8)
		More satisfactory 8 (14.6) 7 (7.5) 16 (3.2) 5 (8.5) 36 (13.0) Most satisfactory 0 (0) 1 (1.1) 3 (4.3) 0 (0) 4 (1.4)
		Mean Rank 126.43 130.83 166.85 128.69
		x*=13.495, P=0.004 Mean R mic* 129.20 149.26
		x=4.996, P=0.025 Note: s= difference analysis among four districts (K-W test), *significant value=0.05
		Total a state state and your strong you seemed (at 17 years), against an institution of
Discussion	Thank you for your comprehensive	4.Discussion
-	suggestions, we have reorganized the	
28. Reorganize the	discussion part in following steps.	The performance of FDCS for
discussion align with	a.s. accion part in following otopo.	disabled older adults in Beijing
the objective.	(1) Use the subheadings to highlight the	, 3
	point in the discussion section to align with	
"Objective	I DOILICITI CHE CISCUSSION SECTION TO AUCH WITH	
•		
To evaluate the	the objective.	The roles of FDCS for disabled older
•	the objective.	
To evaluate the		The roles of FDCS for disabled older

contract services (FDCS) in Beijing	Beijing based on performance, roles, differences, barriers and facilitators.	The differences of FDCS for disabled older adults between urban and rural
To identify current state of Family	, and the second	Beijing
doctor contract services (FDCS)		The barriers of FDCS for disabled older adults in Beijing
To investigate the challenges and		
opportunities faced by FDCS in providing care for		The facilitators of FDCS for disabled older adults in Beijing
them.		
Discussion 29. Discuss on the	Thank you for your comprehensive suggestions, we have revised the	The facilitators of FDCS for disabled older adults in Beijing
findings of this study, compare with literature, and draw the suggestion from this	discussion by comparing it with the literature. (1) Each time we discuss the results of this study, we have cited relevant literature for comparison.	"By comparing with existing literature, our research finds that the successful implementation of FDCS in other countries has the following commonalities"
study to extent the knowledge.	(2) To summarize the suggestion the suggestion from this study to the health management and primary health care for the disabled older adults.	"In some developed countries, such as the U.S., Canada, French"
Discussion	Thomas your common books	The facilitators of FDCS for disabled
30. Rewrite this	Thank you for your comprehensive suggestions, we have transformed the question form into a declarative sentence.	older adults in Beijing
sentence in narrative not the question.	question form into a accordance semence.	"Therefore, in order to solve the problems in FDCS for disabled older adults and improve the quality of FDCS, first of all,"
Discussion	Thank you for your comprehensive suggestions, we have added this point	4. Strengths and Limitations
31. Limitation of this study were collected data from one sector of healthcare provider	when stating the limitations that the study is not sufficient to cover all stakeholders' perspectives since it is drawn from only one sector.	"However, our research inevitably has some shortcomings, which can be roughly divided into two aspects. First, this study were collected data
does not cover the perspective of all stakeholders.		from one sector of healthcare provider does not cover the perspective of all stakeholders in FDCS."
Reviewer 2	<u>I</u>	<u> </u>

Dear Dr. Yu Xiao

Thank you for your nice comments on our article. According to your suggestions, we have supplemented several data here and corrected several mistakes in our previous draft. Based on your comments, we have made extensive revisions to our previous draft. The detailed point-by-point responses are listed below.

Abstract:

Please avoid using too many abbreviations in the Abstract.

Thank you for your nice suggestions. We have carefully considered your comments and modified our manuscript in following steps.

- (1) We have carefully reviewed the full text of the abstract, and found that too many abbreviations in the Abstract section influence on reading and comprehension of readers.
- (2) We have revised all the abbreviation of "FDs" to the full name"Family doctors" in our manuscript.

Objective To evaluate the current state of family doctor contract services(FDCS) in Beijing, identify the roles of family doctors who have worked with disabled older adults and investigate the barriers and facilitators faced by family doctors in providing care for them.

Design A convergent mixed methods study was carried out from October 2020 to January 2021 to collect and analyze both quantitative and qualitative data. The integration strategies in this study was connecting the results of the quantitative phase to data collection of the qualitative phase.

Setting A multi-stage sampling strategy was used to select 15 community health centers (CHCs) in four districts of Beijing. Of the four districts, two were from urban areas and two were from rural areas.

Abstract:

of (Family doctors)
FDs who.."
Abbreviations should
be put in this bracket.
Please check the full
text to avoid the
same mistake.

"..the responsibilities

Thank you for your comprehensive suggestions. We have carefully considered your comments and modified our manuscript in following steps.

- (1) We have carefully checked the full content of our manuscript and searched all the abbreviations.
- (2) Revised some mistake that abbreviations put out of bracket.
- (3) Thank you for your carefully review again, we will avoid the same mistake in the future.

future.

Abstract:

Keywords: Please rearrange the key words in alphabetical order.

Thank you for your valuable suggestions. We have carefully checked the keywords with MeSH, and rearranged the keywords in alphabetical order.

Keywords: barriers, contract services, disabled older adults, facilitators, family doctors, roles

Introduction:

"Not only does the large number of disabled elderly imposes a heavy burden on society. but the disabled elderly's needs for health and medical services also bring a great challenge to the primary care system." Describing the elderly as a social burden may lead to discrimination.

Thank you for your valuable and thoughtful suggestions. We have carefully thought your comments and revised our manuscript in following steps.

(1) According to Reframing Aging Initiative(a guide to avoid ageism), we have reconsidered the word like "elderly", and replaced it as older adult and the senior citizen in the whole article.



- (2)Tried to use more neutral and inclusive terms in other manuscript.
- (3)Tried to use more neutral and inclusive terms in other manuscript.
- (4)Avoid using general terms such as "people over 65" when more specific information is available.
- (5) Avoid using the word ageism without explanation.

The Barriers and Facilitators of Family Doctor Contract Services in Caring for Disabled Older Adults in Beijing, China: A Mixed Methods Study

Therefore, satisfying the health and older adults care needs and improving the basic living conditions of disabled older adults is not only an urgent needs of the senior and their families, but also a serious social issue to be considered......

To solve the dilemma of FDCS and let family doctors provide more high quality services for disabled older adults, this study is the first to identify the roles of family doctors contracted with disabled older adults in Beijing and investigated the barriers and facilitators of utilizing FDCS from the perspectives of family doctors.....

Results:

"Males occupied less than half (30.1%) of the participants." Why is the proportion of male participants so low? Thank you for your valuable suggestions. We have carefully thought your comments and answered in this way.

- (1)With regard to the male ratio of 30.1%, this is due to the fact that men mainly choose to work in general hospitals, which has led to female medical staff becoming the backbone of the family doctor team in primary health care.
- (2)GAO H, LIU S Z, LI H. The safety support and willingness of providing home care services by medical staff of primary

health care institutions[J]. Chinese General Practice, 2022, 25(34):4326-4331.

This article from the Chinese Journal of Family Medicine talks about how "women are far more numerous than men among

/

primary care staff...young and middle-aged women and junior staff are predominant in primary care facilities."

Discussion:

"It is worth mentioning that there is a significant difference in satisfaction among the four regions of FDCS." What is the reason for the difference?

Thank you for your comprehensive suggestions, we should focus on the differences of FDCS between urban and rural areas in the discussion.

- (1) We modify the reference to significant differences among the four regions in the discussion to significant differences between urban and rural areas based on the presentation of the results, thus specifically including the comparison of urban and rural differences as part of the discussion to explain the differences between regions in an integrated way.
- (2) We explain the reasons for this based on the relevant literature.

The differences of FDCS for disabled older adults between urban and rural Beijing

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"In this study, there is a significant difference(P=0.025) in satisfaction of FDCS between urban and rural areas, the rural medical staff are more satisfied with the provision of FDCS for the disabled older adults than urban."

.....

"One possible explanation to describe this phenomenon is that disabled older adults living in rural areas may have relatively simple health needs compared to urban areas."

Discussion:

"The service provided by rural medical staff for the disabled elderly is better than that provided by urban medical staff, thus satisfying the medical needs of the disabled elderly. It means the living standard of the disabled elderly in urban areas is high, compared with the disabled elderly in rural areas, they may have more diverse medical service needs, so FDCS is difficult to meet their medical needs." I don't quite agree with the authors' explanation of this

Thank you for your comprehensive suggestions, we revised the statements.

- (1) We recognized the ambiguity that the satisfaction of family doctors with their own service delivery does not equate to quality of service and revised it.
- (2) We added the value you mentioned "although there is more demand for medical services in urban areas, family doctors in these areas often have more medical resources" as a part of explanation.
- (3) Based on literature review to explain the possible reasons for urban-rural differences in service satisfaction.

The differences of FDCS for disabled older adults between urban and rural Beijing

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"Although there is more demand for medical services in urban areas, FDs in these areas often have more medical resources."

"In this study, there is a significant difference(P=0.025) in satisfaction of FDCS between urban and rural areas, the rural medical staff are more satisfied with the provision of FDCS for the disabled older adults than urban."

"One possible explanation to describe this phenomenon is that disabled older adults living in rural areas may have relatively simple health needs compared to urban areas."

phenomenon. In other words, although there is more demand for medical services in urban areas, FDs in these areas often have more medical resources. Discussion: "FDs in rural areas said that their CHC lacks basic inspection facilities, which brings a lot of inconveniences to conducting FD contract services" Punctuation is lacking at the end of the sentence. There are similar mistakes elsewhere in the whole text.	Thank you for your comprehensive suggestions, we have carefully checked the whole the content of our manuscript and added period to sentences where punctuation was missing.	The barriers of FDCS for disabled older adults in Beijing "Family doctors in rural areas said that their CHCs lacks basic inspection facilities, which brings a lot of inconveniences to conducting FDCS." The facilitators of FDCS for disabled older adults in Beijing "Therefore, in order to solve the problems in FDCS for disabled older adults and improve the quality of FDCS, first of all,"
Discussion: "How to improve the quality of FDCS for the disabled elderly?" Authors can introduce foreign advanced experience appropriately.	Thank you for your helpful suggestions, we added the successful implementation of FDCS from other countries for the disabled adults. (1)Based on the literature review, we summarized the foreign experience into 3 points. (2)And subsequently we summarized the corresponding strategies to solve the problems in FDCS for disabled older adults and improve the quality of family doctors.	The facilitators of FDCS for disabled older adults in Beijing "By comparing with existing literature, our research finds that the successful implementation of FDCS in other countries has the following commonalities:1) The development of FDCS is based on community health institutions2) Education and training of family doctors is an important prerequisite to ensure the implementation of FDCS 3) A reasonable and effective incentive mechanism of FDs is a necessary guarantee for FDs to insist on FDCS"
Other valuable suggestions:	Thank you for your helpful suggestions, which are greatly appreciated.	

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FDs are vital to	We used this document as a reference and	
China's primary	cited it in our discussion of the development	
health care system.	dilemma of the Chinese family medicine	
The development	system.	
dilemma of family		
medicine system in		
China is worthy of		
attention. The		
following document		
may provide some		
useful information:		
https://pubmed.ncbi.		
nlm.nih.gov/3409658		
6/		
Other valuable	Thank you for your comprehensive	
suggestions:	suggestions,	
The language of the	we have touched up the language of the	
full text can be fully	whole text and checked the length of	
polished.	statements, grammar, and punctuation.	
	Managembile the lenguage of the full text bee	
	Meanwhile, the language of the full text has	
	been fully polished by two masters of	
	English Translation who have passed TEM-	
	8.	

We would love to thank you for allowing us to resubmit a revised copy of the manuscript and we highly appreciate your time and consideration.

VERSION 2 – REVIEW

REVIEWER	Kitreerawutiwong, Nithra	
	Naresuan University, Phitsanulok, Thailand, Community health	
REVIEW RETURNED	29-Apr-2023	
GENERAL COMMENTS	Acceptable for the revision.	
REVIEWER	Xiao, Yu	
	The Clinical Hospital of Chengdu Brain Science Institute, MOE	
	Key Lab for Neuroinformation, University of Electronic Science and	
	Technology of China, Psychosomatic Medical Center	
REVIEW RETURNED	16-Apr-2023	
GENERAL COMMENTS	I am basically satisfied with the revisions made by the authors.	