Fulfillment and Challenge in The Role of Community and Township Health Center Managers in China : A Grounded Theory Study

Rao Xin (✉ 617993959@qq.com )
West China Hospital of Sichuan University

Wen Jin
West China Hospital of Sichuan University

Wang Xingyue
West China Hospital of Sichuan University

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Abstract

Background: In China’s health reform, community and township health center are with multiple expectations. However, in this process, the fulfillment and challenge in the role of community and township health center managers need to be revealed to maintain the health reform a sustainable development.

Purpose: The purpose of this study is to describe the factors that influence the fulfillment and challenge in the role of community and township health center managers. Method: Analysis of 72 interviews with community and township health center manager was performed with grounded theory methodology.

Results: Fulfillment were “seeing positive change”, “experiencing a variety of relationships”, “being creative to promote development” and “experiencing professional growth”. Some negative themes that resulted in challenge were “lack of systematically training”, “feeling overwhelmed with the number of hours and duties”, “information system need to be advanced”, “the faculty shortage” and a “lack of supervision and support from the local administration”.

Conclusion: By disclosing aspects of fulfillment and challenge of the community and township health center manager role, the development of community and township health center will be affected.

Introduction

China has substantially increased financial investment and introduced policies for strengthening its primary health care system with core responsibilities in preventing and managing chronic diseases.[1] To obtain the aim, some research focus on the mechanics[2–4] and others focus the behavior changes[5] of health workers in township hospitals by exploring their individual service[6–8], health information utilization[9, 10]. However, few others have the potential to bring about change within the community and township health center manager role to hold a strong influence on the future of primary health care system. Despite their high visibility and highly influential roles, very little is known about these leaders of our primary health care system.

The role of community and township health center manager is far different from the responsibilities of hospital manager. There are unique challenges to the community and township health center manager profession which ensure that, when compared to other professions, it is much more difficult to adjust to.

These challenges include being a leader in a shortage, lack of funding for community and township health center manager research, and is very essential for success of the health reform in China.

Review of the literature

Li[1] refers the enhancement of the quality of training for primary health-care physicians. Huang[2] points out, the medical reform in China was the change to family doctor policy practice which led to an increased workload for primary health-care workers at community health service centres. Yuan[4] studies on that is
the perceived quality of township health centres. He [5] analyze of the behavior change mechanism of township hospital health workers in Hubei Province of China. Zhang [6] researches the factors affecting patients' preferences for CHC in China. Zhou[8] studies the association of primary care physician supply with maternal and child health in China. Li[9] analyze the status of primary health care physicians' turnover intention in China and the relationship between physicians' perceived overqualification and their turnover intention. The biggest challenge in implementing the primary health care principles is of equitable distribution of health care to all. The rural masses and urban slum dwellers are most vulnerable to lack of access to health care.[11] However, few focus on the role played on Community and Township Health Center Managers. The study highlight their fulfillment and challenge to reveal more implication on health reform.

Method

Grounded theory methodology combines the researchers' interaction and involvement with the participants in constructing a theory[12, 13]. The interviews were transcribed by the principal investigator, along with the research team. The research team completed an audit trail of each member's thoughts and reflection of the interviews. Dependability was achieved through a process of the audit trail. To achieve dependability, inquiries were made to ensure the research process was logical, traceable and clearly documented. Peer debriefing was utilized as a method of rigor in the qualitative research process. This debriefing involved the assembling of peers, inclusive of research team and the principal investigator, to analyze various aspects of the inquiry and check for any bias on the part of the researcher—particularly if there was sufficient reflexivity, whether or not the data adequately portrays the phenomenon and if there are errors with interpretation. It refers to the extent in which the researchers demonstrate the realities of the participants, including feelings, emotions, full experiences and context, so that the reader may have a heightened sensibility toward the issues being portrayed. To ensure authenticity, verbatim excerpts from the participants' stories are included in the research results that illustrated key concepts and themes. The number of participants in this study was adequate when information saturation was achieved, which occurred when additional sampling provided only the redundancy of previously collected data, rather than new information.

Grounded theory methods dictate coding and analysis of the data as it is collected. The researcher does not wait until data are completely collected to begin data analysis[14, 15]. Instead, data collection and analysis occur simultaneously. Essential themes were gleaned out of the interview texts by initial coding, focused coding and axial coding. Initial coding was done by a line-by-line sequencing of significant statements in participants' transcripts. Line-by-line initial coding reduced the likelihood of superimposing preconceived notions in data analysis. Focused coding was done by assessing the initial codes for meaning and significance. Statements or phrases that seemed to reveal aspects of the lived experience were highlighted and written on an index card. All data written on the index cards were spread out for examination and then organized into meaningful rows. Every index card that contained significant statements was grouped together by the theme row and given a descriptive label. The index cards were then categorized in a small file box, according to their respective descriptive labels.
Axial coding related categories to subcategories, which developed major themes by using audit trails, memo writing and reflexivity on emerging themes[16]. Axial coding involved analyzing the significant statements and descriptive labels using nvivo qualitative software for overarching themes. All the index cards were imported into the software. Utilizing qualitative software enabled the researchers to consider the frequency of significant statements as themes emerged.

The overall research question for this grounded theory study was “How do community and township health center manager adjust to their leadership role in order to feel fulfilled?”

with the literature and expert group discussion, an interview guide was used that featured three overarching questions. To complete the unstructured interview, the following questions were used for the guide:

a.) Can you tell me about your role as a manager leader in the environment?

b.) Can you take me back to other community and township health center manager roles you have held, and how this role differs from that time in your professional career?

c.) Could you describe an challenge you’ve had that held a significant meaning for you in this role?

With the pilot study of four participant, the research team modify the interview time with more flexibility.

Each participant was given the informed consent for review prior to the interview, as well as a consent to be recorded via digital voice recorder.

Seventy-two participants, who held the title of a community and township health center manager program in the Henan province, China, were included in the study. The participants were identified by information gathered through snowball sampling and internet searches for the convenience sampling, purposeful sampling, and theoretical sampling. Recruitment was initiated through email. Convenience sampling was used to obtain the scope and dimensions of the problem, as ten participants were initially interviewed as a convenience sample due to proximity of location for a face-to-face interview[14].

Four interview researcher followed up to one of four subgroups each to take the survey simultaneously (each group were romdomized grouped ahead of time for the reason besides the program, but each is easy to contact though they have 18-20 members each). During and after the survey, four interview researcher kept contact often and intergrate the information after the survey.

**Results**

Demographic characteristics of participants are shown in Table 1
## Table 1  
Demographic characteristics of participants

<table>
<thead>
<tr>
<th>item</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>institution</td>
<td></td>
</tr>
<tr>
<td>community health center</td>
<td>21 29%</td>
</tr>
<tr>
<td>hospital at city level</td>
<td>4  6%</td>
</tr>
<tr>
<td>township health center</td>
<td>47 65%</td>
</tr>
<tr>
<td>current position</td>
<td></td>
</tr>
<tr>
<td>management position</td>
<td>46 64%</td>
</tr>
<tr>
<td>clinic and management position</td>
<td>21 29%</td>
</tr>
<tr>
<td>clinic position</td>
<td>5  7%</td>
</tr>
<tr>
<td>Years in professional clinician positions</td>
<td></td>
</tr>
<tr>
<td>20+ years</td>
<td>40 56%</td>
</tr>
<tr>
<td>10~20 years</td>
<td>19 26%</td>
</tr>
<tr>
<td>6~10 years</td>
<td>8  11%</td>
</tr>
<tr>
<td>0~5 years</td>
<td>5  7%</td>
</tr>
<tr>
<td>Years in management positions</td>
<td></td>
</tr>
<tr>
<td>20+ years</td>
<td>9  13%</td>
</tr>
<tr>
<td>10~20 years</td>
<td>31 43%</td>
</tr>
<tr>
<td>6~10 years</td>
<td>17 24%</td>
</tr>
<tr>
<td>0~5 years</td>
<td>15 21%</td>
</tr>
</tbody>
</table>

1. Open coding is mainly to code and label the original interview data verbatim, to generate initial concepts from the original data, and to summarize concepts with the same or similar connotations to discover the initial category. After many times of sorting and analysis, 372 initial concepts were finally summarized from the original data. Specific coding examples are shown in Table 2, only part of the coding content is selected.
<table>
<thead>
<tr>
<th>participants' initial information</th>
<th>initial concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>The awareness of the comprehensive service ability of primary healthcare institutions needs to be improved. Not only should cultivate awareness of the importance of healthcare reform but also take an active participant in it.</td>
<td>primary care draw much of national attention; seeing positive change</td>
</tr>
<tr>
<td>Hierarchical medical system and two-way referral relieve the pressure of central healthcare center, promote the bed utilization rate of local hospitals and community healthcare centers,[19] and relax the tense relationship between doctors and patients.</td>
<td>utilization rate of local hospitals and community health; care experiencing a variety of relationships</td>
</tr>
<tr>
<td>“It is necessary to learn and digest the experience of various places to find a way to perfect the combination of basic medical care, basic public health, and family doctor contracted services to promote each other. We must study the laws in depth, do a good job in local practice, and promote our ability.”</td>
<td>being creative to promote development; promote our ability</td>
</tr>
<tr>
<td>The current medical service model transformation: Let all services focus on the health of residents, make the service model completely change from “treatment” to “prevention”, from “passive service” to “active service”, so that institutional managers can interact with Advance with the times and achieve career advancement.”</td>
<td>experiencing professional growth</td>
</tr>
<tr>
<td>“Facing China’s primary health care reform, I feel that I am really falling behind. Although I have been working in the community for 10 years, and every year I strive to promote various goals and tasks in accordance with the policies of my superiors, the pace of promoting community development is difficult. Improvements in all aspects are needed.”</td>
<td>Improvements in all aspects are needed; lack of systematically training</td>
</tr>
<tr>
<td>“The work of community health is very heavy. In addition to daily work, basic public health work has not decreased. I feel like I could just sit in my office and work from early morning to late night, and maybe midnight even, seven days a week and I’d probably never get to do everything I want to do. The overall number of hours can be daunting as well as the variety of tasks the community and township health center manager is responsible for.”</td>
<td>The overall number of hours can be daunting; feeling overwhelmed with the number of hours and duties</td>
</tr>
<tr>
<td>“In terms of informatization construction, our center is unable to get the ideas and financial support of the main managers, and the information system is very lagging. All large amounts of data only rely on manual input, which takes up a lot of working time and will inevitably affect the effective implementation of various services. frequency. In 2021, I will continue to apply to the leaders in charge to accelerate the pace of informatization construction, implement the residents’ electronic signing system, and implement the integration of the community His system and the public health system medical insurance system.”</td>
<td>Information system need to be advanced; Information system construction need to be paced up</td>
</tr>
<tr>
<td>Although the department is well-established in our center, the situation of one person taking multiple jobs is also a last resort, which leads to a lot of work cannot be quickly carried out and there is no manpower and energy to extend the health management services of residents.”</td>
<td>lack of faculty shortage</td>
</tr>
<tr>
<td>participants' initial information</td>
<td>initial concept</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>The implementation of guideline for the policy: 1. Lack the supervision; 2. Check the operation data annually without addressing the causes.</td>
<td>Lack of supervision and support from the local administration</td>
</tr>
</tbody>
</table>

2. main axis coding

The main axis coding is mainly to discover and establish various connections between conceptual categories to express the organic connections between various parts of the data in Table 3.
### Table 3
The categorical relationship formed by the principal axis coding table

<table>
<thead>
<tr>
<th>main coding</th>
<th>sub main coding (code frequency)</th>
<th>participants’ initial information</th>
</tr>
</thead>
<tbody>
<tr>
<td>fulfilment</td>
<td>seeing positive change (62)</td>
<td>The awareness of the comprehensive service ability of primary healthcare institutions needs to be improved. Not only should cultivate awareness of the importance of healthcare reform but also take an active participant in it.</td>
</tr>
<tr>
<td></td>
<td>experiencing a variety of relationships (44)</td>
<td>Hierarchical medical system and two-way referral relieve the pressure of central healthcare center, promote the bed utilization rate of local hospitals and community healthcare centers,[19] and relax the tense relationship between doctors and patients.</td>
</tr>
<tr>
<td></td>
<td>being creative to promote development (33)</td>
<td>“It is necessary to learn and digest the experience of various places to find a way to perfect the combination of basic medical care, basic public health, and family doctor contracted services to promote each other. We must study the laws in depth, do a good job in local practice, and promote our ability.”</td>
</tr>
<tr>
<td></td>
<td>experiencing professional growth (20)</td>
<td>The current medical service model transformation: Let all services focus on the health of residents, make the service model completely change from “treatment” to “prevention”, from “passive service” to “active service”, so that institutional managers can interact with Advance with the times and achieve career advancement.”</td>
</tr>
<tr>
<td>challenge</td>
<td>lack of systematically training (46)</td>
<td>“Facing China's primary health care reform, I feel that I am really falling behind. Although I have been working in the community for 10 years, and every year I strive to promote various goals and tasks in accordance with the policies of my superiors, the pace of promoting community development is difficult. Improvements in all aspects are needed.”</td>
</tr>
<tr>
<td></td>
<td>feeling overwhelmed with the number of hours and duties (54)</td>
<td>“The work of community health is very heavy. In addition to daily work, basic public health work has not decreased. I feel like I could just sit in my office and work from early morning to late night, and maybe midnight even, seven days a week and I'd probably never get to do everything I want to do. The overall number of hours can be daunting as well as the variety of tasks the community and township health center manager is responsible for.”</td>
</tr>
<tr>
<td></td>
<td>Information system need to be advanced (44)</td>
<td>“In terms of informatization construction, our center is unable to get the ideas and financial support of the main managers, and the information system is very lagging. All large amounts of data only rely on manual input, which takes up a lot of working time and will inevitably affect the effective implementation of various services. frequency. In 2021, I will continue to apply to the leaders in charge to accelerate the pace of informatization construction, implement the residents' electronic signing system, and implement the integration of the community His system and the public health system medical insurance system.”</td>
</tr>
<tr>
<td>main coding</td>
<td>sub main coding (code frequency)</td>
<td>participants’ initial information</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>lack of faculty shortage(32)</td>
<td></td>
<td>Although the department is well-established in our center, the situation of one person taking multiple jobs is also a last resort, which leads to a lot of work cannot be quickly carried out and there is no manpower and energy to extend the health management services of residents.”</td>
</tr>
<tr>
<td>Lack of supervision and support from the local administration(27)</td>
<td></td>
<td>The implementation of guideline for the policy: 1. Lack the supervision; 2. Check the operation data annually without addressing the causes.</td>
</tr>
</tbody>
</table>

3. Selective coding selection coding refers to linking the core category system with other categories on the basis of the main axis coding, verifying the relationship between them, and performing the 9 subsidiary categories and 2 main categories formed in the above-mentioned main axis coding process. In-depth logical relationship analysis and combing, and construct a factor model (as shown in Fig. 1).

The theory that emerged from the data involves a social process of role fulfillment. The participants found that reaching out to others for assistance in adapting to their role as community and township health center manager. Four themes emerged as fulfillment to the community and township health center manager and five themes described aspects of the role that negatively impacted fulfillment.

4. Theoretical saturation test When testing the theoretical saturation in this study, the valid data of the two reserved interview samples are used to test the theoretical saturation. The test results prove that each category has been developed and perfected. For the 9 subsidiary categories, no new categories have been discovered, and no new initial concepts have been discovered within the categories. Therefore, the study believes that the study obtained through grounded theoretical methods have reached theoretical saturation.

**Factors Explanation**

Some positive themes that resulted in fulfillment were seeing positive change

The biggest challenge in implementing the primary health care principles is of equitable distribution of health care to all. The rural masses and urban slum dwellers are most vulnerable to lack of access to health care. However, it suggest that the composition of health care use in China has changed, with people increasingly seeking outpatient care at village clinics and inpatient care at township health centers[5, 17]. It’s necessary to enhance the function of community healthcare service, including general outpatient clinic and the family medicine service group. Township hospital is a small but complete healthcare organization. The chief of township hospital is with great responsibility. To be a competent chief, it requires correct concepts of public healthcare service and basic medical service. It should be
focused on public healthcare service and adapt to the principle of market and the requirement of the National Health Commission. The family medicine service group might break the tie of township hospitals' predicament.

experiencing a variety of relationships
Patients reported a lower level of experience of community orientation and family centeredness compared to other primary care domains. Patients from THCs/RHSs settings in the rural area reported better primary care experience in four domains, including first contact, accessibility, ongoing care, and community orientation[6, 18]. World Health Organization’s initiatives to advance primary care, China put forth forceful policies including the Personal Family Doctor Contract to ensure that every family sign up with a qualified doctor in a community health center[19]. Hence, Family Doctor Contract plays an essential role to rebuilt the relationship between residents and hospitals. Different from central healthcare center and large hospitals, primary medical institutions need to promote of service capability of family medicine service groups, with the goal of establishing a stable, mutual trust, and contractual service relationship. To meet the needs of residents’ health management, family medicine service groups require the establishment of a good team of family doctors, enhancing team awareness and repute. Doing a good job in contracting services is conducive to the health center to grasp the health of the masses and can carry out targeted medical services. Community healthcare organization need to understand that the medical problem is not all about curing, but more about caring. It can comfort patients and their families which can help reduce doctor-patient conflicts. Humanities education must be carried out in response to the practical problems of hospital.

being creative to promote development
China adds to the previously reported evidence on the association between primary care and improved health, especially that of the disadvantaged[18]. Managers should also encourage individuals with a high level of connectedness in advisory networks play the role of “opinion leader” so that they can help others mitigate burnout.[20] In the development process of community service centers, blindly sticking to conventions cannot achieve good performance. Therefore, we must dare to make breakthroughs, dare to innovate methods and methods, and continuously innovate service models based on the original services of community service centers.

experiencing professional growth
Primary care delivery in CHCs/CHSs settings should be improved in four domains, including first contact, accessibility, ongoing care, and community orientation.[21]. Improving the feasibility, pertinence, and effects of health service, and can serve as the guide in understanding health workers’ behaviors.[5] It’s the treasure chance for the manger to get professional growth. The management ability depends on the character to be a person in advance. The first thing to improve the management ability is to improve the quality of life, and then the management method. In terms of character training, on the one hand, the director of the health center must strengthen his sense of responsibility. In order to improve management methods, the director of the health center must first master the basic knowledge and methods of public health management; secondly, he must know how to make progress gradually. The management of
health centers should start from the simplest, easiest, most effective and most urgent. And pay attention to details.

Some negative themes that resulted in a lack of fulfillment were lack of systematically training
Community and township health center managership often comes into their role with little to no mentorship. Many are transferred from other field or clinic position. The training intervention was effective in improving the knowledge and attitude towards group.[22] Participants have different academic backgrounds, and most of them are transformed from clinical staff who have been engaged in professional and technical work for many years. Also in the survey, a willingness of training topics survey was conducted and the result was in Fig. 2.

feeling overwhelmed with the number of hours and duties
Working in primary care will be very busy. More public health service providers are experiencing job burnout than clinical care providers in primary care facilities in China.[23] How to allocate public health manpower in township health centers in China scientifically and reasonably is a crucial issue.[24]

Community health work is very exhausting and the number of annual public health tasks has not been reduced by the epidemic prevention! The elderly health management rate and the standardized management rate of hypertension and diabetes have annual indicators.

Information system need to be advanced
The is important characteristics of the Web site, specific functions that improve the workflow of the practicing clinician, and limitations of the present implementation[25, 26]. It is believed that advancing the construction of a network management platform for community health service information construction is to meet the needs of the digital development of the entire society, as well as to accelerate the pace of modernization and promote the development of the CHC. If the computerized network management of family health records and chronic diseases on the basis of the medical insurance system launched, it will surely make the primary health services develop more healthily and comprehensively.

lack of faculty shortage
The lack of talents for community work is the biggest bottleneck.[8, 23]Community and township health center managers face the challenge of recruiting new community and township health center manager faculty, as the majority are nearing retirement. “On-the-job medical staff is severely lacking, and general practitioners are not strong in professional and technical capabilities, and cannot meet the residents’ medical needs. The staff structure is aging, it is difficult to deal with daily work, and it is seriously unable to adapt to modern hospital management.

Lack of supervision and support from the local administration
There are numbers of guidelines published to strengthen the primary care. [3, 4, 27–29]
But there are still something need to be done to take this advantage. The guideling often mainly conducted by the higher agency which does not understand the practice of the grass level affair very well, and the local administration has to make relevent action to take some neccessary support and adjustment to meet the grass level;s need.

**Discussion**

In China's health reform, community and township health center are with multiple expectations. However, in this process, the fulfillment and challenge in the role of community and township health center managers need to be revealed to maintain the health reform a sustainable development. In this study, the fulfillment and challenge were collected and studied. Usually, the voice and the perspective from the grass level are not easily be noticed and paid attention, but it's very essential to make the sustainable development in China’s health reform. From this study, four positive themes and five negative themes were itemed.

For the positive themes the role of community and township health center managers, it need two main aspects to strengthen the fulfillment. First, it need not only the community and township health center managers to change their traditional concept of their own, but also the whole society to transfer their perspective toward them. Second, career promotion should further developed, including their professional experience of grass level, fulfillment and respect.

For the negative themes the role of community and township health center managers, it also need two main aspects to change current fact. First, the basic construction, such as information construction and human resource development should under serious consideration to lease the managers’ workload in grass level. Second, suitable health policy for the grass level should be implemented.

Nevertheless, the grass health level can be promoted with our right perspective toward the role of community and township health center managers.

**Limitations:**

Qualitative survey reflects the reality to some extent, but quantitative indicators which can describe the Operation reality, which can be applied in the further study.

Although the policy and operation mechanism of the community and township health center are almost the same in China as a whole, the economic and local difference will still affect.

**Recommendations for future research:**

This study has contributed to the limited research on community and township health center manager, aspects of fulfillment with their roles. A more transitional, longitudinal study using a mixed method
design could potentially result in a better understanding of the role, and the ways in which these leaders can facilitate smoother transition for future career in later years.

**Declarations**

**Ethic approval and consent to participate**

This work was supported by the West China hospital ethic committee (2020YFQ0011, Sichuan, China) and informed consent was obtained from the participants in the study. All methods were carried out in accordance with relevant guidelines and regulations.

**Consent for publication**

Not Applicable

**Availability of data and materials**

Generated Statement: This manuscript contains all relevant data.

**Competing interest**

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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**Authors' contributions**

All authors participated in the design of the study and contributed to the drafting of the paper. RX designed the research and was major contributor in writing the manuscript, WJ and WX guide the discussion parts and performed the result. All authors read and approved the final manuscript.

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References


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**Figures**
Figure 1

fulfillment and challenge: trunk of the tree

Fig 1. The trunk of the tree of fulfillment and challenge in their role as community and township health center manager
Figure 2

Willingness of training topics