

Practice and Prospects of Community “General-Specialty Integration” Feature Development Based on Medical Consortiums: A Case Study of Fenglin Street Community Health Service Center in Xuhui District, Shanghai (Postprint)

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Abstract

The principal entities of community healthcare activities are community health service centers. Under the backdrop of new healthcare reform, these centers have been actively exploring suitable development models. The Fenglin Street Community Health Service Center in Xuhui District, Shanghai, has pioneered a “general-specialty integration” model that merges general practice medicine with specialized disease development, which has substantially contributed to the center’s discipline construction and enhancement of medical service levels. This article summarizes the practice of Fenglin’s “general-specialty integration” model, aiming to provide reference and guidance for relevant primary-level medical institutions.

Full Text

Preamble

Practice and Prospects for the Construction of “Combination of General and Specialized Disciplines” Characteristics in Communities Based on the Medical Alliance—Taking Fenglin Street Community Health Service Center in Xuhui District, Shanghai as an Example

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Abstract

The primary entities in community medical activities are the community health service centers. Amidst the backdrop of new medical reforms, these centers have continuously sought appropriate development strategies. The Fenglin Street Community Health Service Center in Xuhui District, Shanghai, has pioneered the “combination of general and specialized disciplines” model, merging general medicine with specialized disease management, which has significantly contributed to the advancement of core disciplinary areas and the enhancement of medical service standards. This paper provides a comprehensive summary of the “combination of general and specialized disciplines” practice in Fenglin, with the aim of offering insights and guidance to related grassroots medical institutions based on the findings.

Keywords: Community health centers; Community health services; Combination of general and specialized disciplines; Medical association; Medical model

Main Text

Community health service centers serve as the principal entities in community medical activities and have been actively exploring suitable development models to continuously improve medical service quality while creating personalized platforms for talented individuals to enhance their capabilities. These centers undertake primary healthcare services, sharing commonalities in service targets, methods, and standards, with their primary positioning being to expand the coverage of basic medical services, act as health gatekeepers for community residents, and fulfill the basic medical needs throughout residents’ entire life cycle from birth to death. However, this has led to a certain degree of homogenization across community health service centers, which predominantly focus on general practice and traditional Chinese medicine (TCM) diagnosis and treatment. Such homogenization limits patients’ choices, while general practitioners (GPs) find it difficult to specialize in the diagnosis, treatment, and management of all common chronic diseases throughout their careers. General medicine emphasizes the cultivation of “breadth” capabilities, which to some extent dilutes physicians’ capacity to handle personalized diseases, though it possesses inherent advantages such as facilitating care for chronic disease patients amid rising incidence due to population aging and effectively diverting patients from overcrowded general hospitals where acute and chronic conditions are not clearly differentiated.

Fenglin Center is located in Xuhui District, which boasts abundant medical resources including eight tertiary hospitals and three secondary hospitals. Specif-

ically, Fenglin Street covers an area of 2.69 square kilometers with a permanent population of 109,700, and features four tertiary hospitals within its boundaries: Fudan University Shanghai Cancer Center, Zhongshan Hospital, Shanghai Mental Health Center affiliated with Shanghai Jiao Tong University, and Longhua Hospital affiliated with Shanghai University of Traditional Chinese Medicine. Xuhui District has continuously improved its medical alliance work by establishing two medical alliances (Xuhui District-Shanghai Sixth People's Hospital Medical Alliance and Xuhui District-Fudan University Affiliated Zhongshan Hospital Medical Alliance) and seven discipline-specific project-based medical alliances, integrating the district's medical resource advantages to achieve collaborative functions including interconnected diagnostic information, test reports, imaging, and health records, enabling residents to enjoy integrated medical collaborative services and comprehensive health management within the Xuhui medical alliance. The district's "General-Specialty Cloud" platform facilitates information system connectivity, allowing community physicians to directly refer and schedule specialist appointments for contracted residents through the center's Hospital Information System (HIS).

The "specialty" in this context differs from hospital specialties; rather, it represents an expansion of "general" practice in both content and form. Specifically, the "combination of general and specialized disciplines" represents the deepening development of general practice, focusing on common chronic disease categories among community residents while maintaining general practice as the foundation and developing specialized disease medical services upon this base. Community health service centers implementing this model in accordance with their actual conditions aligns with the hierarchical diagnosis and treatment policy proposed by the former National Health and Family Planning Commission to "strengthen the construction of primary-level medical talent teams with GPs as the focus, and further improve medical resource utilization efficiency and overall effectiveness."

1. Foundation and Technical Support for "Combination of General and Specialized Disciplines"

Many countries and regions internationally utilize GPs as the main body to carry out integrated general and specialized services through collaborative division of labor, providing valuable experience for China's development of "combination of general and specialized disciplines" and enhancement of GPs' specialized capabilities. For instance, American GPs expand their service content based on needs to provide specialized medical services such as mental health and minor dermatological surgeries. The UK government establishes multidisciplinary expert teams at community service points to conduct case management, supporting chronic disease patients in achieving self-care. Thailand develops specialized disease nursing based on communities, trains specialist nurses, expands nursing staff's general practice business, and enables them to undertake community mental health work, effectively improving local mental health con-

ditions. Some countries invite specialists to clinics to directly serve patients, which both enriches GP teams, improves community medical service quality, and provides convenience for patients.

In recent years, general practice in China has achieved considerable development with the basic formation of a GP training system including standardized training and job transfer training. The GP workforce has continuously improved, possessing general practice thinking and clinical practice capabilities. Through initiatives such as community hospital construction, community health institutions have enhanced their service capabilities, enabling them to undertake basic diagnosis and treatment tasks for common and chronic diseases in communities.

2. Practical Exploration of “Combination of General and Specialized Disciplines”

Since 2015, Fenglin Center has explored the construction of community “combination of general and specialized disciplines” characteristics based on medical alliances, continuously developing specialized disciplines. According to the community disease spectrum, residents’ needs, and its own medical foundation, the center has conducted practical exploration to develop specialized disease diagnosis and treatment services, summarized and formed a community health service center “combination of general and specialized disciplines” model, and improved community medical quality and residents’ trust through this approach, thereby undertaking medical tasks for common, chronic, and frequently occurring diseases in the community.

Xuhui District Medical Alliance has implemented “five-link work” including joint business collaboration, joint talent training, coordinated hierarchical diagnosis and treatment, shared hospital preparations, and co-constructed information management platforms. Leveraging the advantageous resources of the Xuhui District Medical Alliance, Fenglin Center has based its practice on general practice, using the establishment of specialized disease clinics, cultivation of specialized disease capabilities, and service capacity improvement as entry points to carry out “combination of general and specialized disciplines” practical exploration.

2.1 Specialized Disease Clinics as Strong Carriers

Based on the Fenglin community disease spectrum, public needs, and its own medical characteristics, and fully utilizing medical alliance resources and specialist expertise from tertiary hospitals, Fenglin Center has established specialized disease clinics to develop advantageous specialized disease diagnosis and treatment services. Each specialized disease clinic relies on one tertiary hospital, one specialist from a tertiary hospital, or an expert team, and is staffed with 1-2 backbone physicians from the center to collaboratively provide specialized disease clinic services. For example, the osteoporosis specialized clinic, supported by Shanghai Sixth People’s Hospital, conducts teaching clinics with expert demon-

strations and guidance; strengthens osteoporosis prevention and treatment team construction by assigning dedicated physicians and nurses; establishes a community osteoporosis self-management group called “Fenggu Club” to carry out self-management work for community osteoporosis patients; and creates an “Osteoporosis Community Management System” to explore standardized osteoporosis management. This management system connects with the center’s HIS GP information platform and health records module to provide whole-process management for community osteoporosis patients, achieving over 400 monthly outpatient visits.

Leveraging quality medical resources from Fudan University Shanghai Medical College Affiliated Pediatric Hospital, Fenglin Center has established a child growth and development clinic, being the first in the district to utilize artificial intelligence (AI) bone age determination technology to screen children with abnormal growth and development in its jurisdiction, providing early intervention for abnormalities or referring them to the pediatric hospital. The center has also fully utilized association resources to participate in Chinese Medical Association projects. For instance, Fenglin Center’s nutrition clinic serves as a Shanghai community pilot base for the “National Community Health Service Institution Specialized Service Capacity Enhancement Plan Community Nutrition Clinic Project” under the Chinese Medical Association General Practice Branch; the respiratory specialized clinic participates in the “Shanghai Hundred Community Nebulization Workstation Standardization Construction Project”; and the center has been recognized as a national cardiovascular and diabetes capability enhancement practice base for the “National Community Health Service Institution Specialized Service Capacity Enhancement Plan Cardiovascular and Diabetes Project” by the Chinese Medical Association General Practice Branch.

Relying on support from Shanghai University of Traditional Chinese Medicine Affiliated Longhua Hospital, municipal health commission research projects, Shanghai TCM advantageous disease cultivation and construction projects, Xuhui District Science and Technology Commission research projects, and Fenglin Center’s TCM characteristics, the center has established six TCM characteristic specialized disease clinics including chronic obstructive pulmonary disease, TCM hypertension, hot compress external treatment (cervical spondylosis), spleen and stomach diseases, TCM palliative care, and knee osteoarthritis. Fenglin Center’s supporting GPs include Chief Physician PU Binhong, recognized as an “Outstanding Shanghai Community TCM Practitioner,” and Deputy Chief Physician YANG Yunfeng, the 14th generation inheritor of the Shanghai TCM Zhang’s Internal Medicine School and a dual-appointed member of the Shanghai TCM Medical Alliance (Longhua Hospital) in 2021.

2.2 Specialized Disease Learning for Elite Cultivation

The center selects excellent GPs and sends them to higher-level hospitals for specialized disease diagnosis and treatment technology training with special-

ized diseases as the goal. GPs have been dispatched to departments such as otolaryngology at Xuhui District Dahua Hospital, dermatology at Fudan University Affiliated Huashan Hospital, cardiology at Fudan University Affiliated Zhongshan Hospital, nutrition at Fudan University Affiliated Huadong Hospital, and orthopedics at Shanghai Sixth People's Hospital to respectively establish otolaryngology, dermatology, atrial fibrillation, community nutrition, and osteoporosis specialized clinics. Doctor DENG Jianan, a national TCM clinical characteristic technology inheritance backbone talent under the guidance of the fourth national TCM master SHI Qi's Shi 氏 Traumatology, has established TCM osteoporosis and TCM bone and joint specialized clinics, applying TCM and acupuncture combination to internally and externally treat various bone and joint diseases and osteoporosis under TCM theory guidance. Doctor AN Guangqing, with a doctoral degree in TCM, has established a COVID-19 TCM rehabilitation clinic, applying TCM theory to provide rehabilitation treatment guidance and follow-up rehabilitation for COVID-19 patients. Relying on the Shanghai Demonstration Community Rehabilitation Center, the center has organized family doctors to participate in the "Shanghai Community Osteoporosis Specialized Disease Physician Training Certificate" program, with 35 family doctors obtaining training certificates, providing a talent foundation for constructing a community osteoporosis management model with family doctors as the main body, family doctor assistants as support, and specialized disease clinics as the backbone.

2.3 Expert 下沉 to Promote Enhancement

Through pairing with experts or expert teams from higher-level hospitals in the medical alliance, experts 下沉 to the community to conduct teaching clinics. Through the mentorship of experts from higher-level hospitals in the medical alliance, the center has cultivated a group of talents through measures including expert guidance, sending staff out for training, and conducting research projects based on specialized disease clinics. The center currently has 21 personnel at district level or above across various fields, including 27 talent projects, among which 15 are specialized disease physicians, 2 are specialized disease nurses, 2 are Xuhui District academic leaders, 1 is a talent in the Xuhui District Health System management category, and 1 is a municipal public health talent. Fenglin Center's backbone medical staff have won over 10 municipal-level awards based on the implementation of "combination of general and specialized disciplines," including Shanghai's first "Outstanding Community TCM Practitioner," four consecutive sessions of Shanghai's Top Ten Family Doctors (including one nomination), Chinese Medical Association's "Outstanding General Practitioner," third Wu Jieping General Practitioner Award, 13th "Chinese Physician Award," Shanghai Youth Post Expert, Shanghai Health and Family Planning Industry Youth May Fourth Medal, first prize in Shanghai Family Doctor Skills Competition, and nomination for Shanghai's Top Ten Community Head Nurses.

2.4 Medical Care, Research, and Infrastructure Support

Adhering to the concept that “research is the driving force,” the center has relied on the support of specialized departments and experts from medical alliance hospitals corresponding to characteristic specialized disease clinics to conduct series of research projects, promoting innovation and enhancement through research to build characteristic specialized discipline brands. Research has improved the overall quality and service level of specialized disease clinic teams, forming a benign development talent echelon, and keeping pace with disciplinary development trends to continuously explore new tracks and directions for specialized disease clinic development. For example, the osteoporosis specialized disease has obtained six district-level or above research projects related to osteoporosis, including one major project from Xuhui District Science and Technology Commission, two general projects, one youth project, and two projects from Shanghai Municipal Health Commission, with the osteoporosis management project recognized as a “2021 Shanghai Community Health Characteristic Service” project.

The center has also used specialized disease clinics to drive the construction of community specialized disease nursing. Under the guidance of the Nursing Department of Fudan University Affiliated Zhongshan Hospital, Fenglin Center has developed specialized disease nursing since 2015, establishing Fengyang, Fengmi, Fenggu Clubs and “Hefeng” palliative care nursing groups to respectively conduct community specialized disease nursing for hypertension, diabetes, osteoporosis, and TCM palliative care services.

The center has also created its own conditions to equip specialized disease clinics with necessary equipment and drugs, providing material foundations for implementing “combination of general and specialized disciplines.” To support the osteoporosis specialized disease clinic, the center has equipped a HOLOGIC dual-energy X-ray absorptiometry (DXA) bone densitometer, combined with existing skeletal X-ray imaging and calcaneal quantitative ultrasound (QUS) to conduct community osteoporosis screening, clinical diagnosis and treatment, and research work. In terms of laboratory tests, the center has equipped routine osteoporosis examinations and bone metabolism indicator testing. For therapeutic drugs, the center has stocked basic supplements including calcium carbonate D3 and active vitamin D; bone resorption inhibitors including calcitonin; bone destruction inhibitors including bisphosphonates (alendronate sodium, zoledronic acid, etc.); selective estrogen receptor modulators; and Chinese patent medicines. To support the community nutrition clinic, the center has equipped a body composition analyzer and special medical food display.

3. Achievements and Prospects of “Combination of General and Specialized Disciplines”

Through the “combination of general and specialized disciplines,” the center has strengthened its community medical talent team construction. Through pair-

ing and mentorship with experts from tertiary hospitals, this approach has not only promoted the 下沉 of expert resources to the community but also improved community physicians' professional capabilities and facilitated the construction of characteristic disciplines. After strengthening characteristic specialized disciplines and clinics, the center has continued to expand its medical service coverage and drive disciplinary development.

3.1 Achievements of “Combination of General and Specialized Disciplines”

3.1.1 Talent Team Cultivation Through measures including expert guidance from higher-level hospitals, sending staff for training, and conducting research projects based on specialized disease clinics, the center has cultivated a group of talents. The center currently has 21 personnel at district level or above across various fields, including 27 talent projects, among which 15 are specialized disease physicians, 2 are specialized disease nurses, 2 are Xuhui District academic leaders, 1 is a talent in the Xuhui District Health System management category, and 1 is a municipal public health talent. Fenglin Center's backbone medical staff have won over 10 municipal-level awards based on the implementation of “combination of general and specialized disciplines,” including Shanghai's first “Outstanding Community TCM Practitioner,” four consecutive sessions of Shanghai's Top Ten Family Doctors (including one nomination), Chinese Medical Association's “Outstanding General Practitioner,” third Wu Jieping General Practitioner Award, 13th “Chinese Physician Award,” Shanghai Youth Post Expert, Shanghai Health and Family Planning Industry Youth May Fourth Medal, first prize in Shanghai Family Doctor Skills Competition, and nomination for Shanghai's Top Ten Community Head Nurses.

3.1.2 Discipline and Brand Building Promotion Taking the rehabilitation department as an example, through the construction of specialized disease clinics such as osteoporosis, Fenglin Center's rehabilitation department has successively obtained multiple collaborative bases and management bases from Shanghai Municipality, Shanghai Sixth People's Hospital, Fudan University Affiliated Zhongshan Hospital, and the Chinese Medical Association Osteoporosis and Bone Mineral Salt Disease Branch since 2015. The rehabilitation medicine department has become a plateau discipline in Xuhui District, with its “Whole-process and All-position Path Management of Osteoporosis” recognized as a 2021 Shanghai Community Health Characteristic Service Project. In 2018, China's first “Guiding Principles for the Diagnosis and Treatment of Primary Osteoporosis in Communities” was released in Shanghai, with Fenglin Center participating as deputy editor unit and its director serving as editorial board member. In 2019, the Chinese Medical Association General Practice Branch organized the compilation of the “Community Standardized Management Plan for Primary Osteoporosis,” with Fenglin Center as deputy group leader unit and its director as deputy head of the compilation group. The TCM department, which also has multiple specialized disease clinics, has become a Xuhui

District medical characteristic specialty, with its “Three Measures for Hypertension Treatment Based on TCM Syndrome Differentiation” recognized as a 2020 Shanghai TCM Characteristic Diagnosis and Treatment Service Brand Project by the Shanghai Municipal Health Commission.

3.1.3 Community Research Development Promotion Combining characteristic specialized disease clinics with support and guidance from higher-level hospitals in the medical alliance, Fenglin Center has conducted series of research projects. In the past three years, the center has obtained nine municipal-level research projects and 15 district-level projects, publishing 123 papers including one SCI paper. In 2018, Tongji University School of Medicine General Practice Department and Chinese General Practice Magazine jointly launched a national community health service institution research capability ranking, in which Fenglin Center ranked fifth. In 2021, two projects from Fenglin Center successively won the 19th Shanghai Medical Science and Technology Award for Community Health and the 14th Shanghai Integrated Traditional Chinese and Western Medicine Science and Technology Award for Community Health. Medical staff participated in compiling 19 books with 64 person-times involvement between 2017 and 2022.

3.1.4 Comprehensive Strength Enhancement and Influence Expansion

Through the construction of the osteoporosis specialized disease clinic, Fenglin Center’s “Medical Technology—Community Osteoporosis Comprehensive Prevention and Treatment Capability Enhancement Project” successfully obtained the title of the first batch of China Community Health Association training bases in 2019. In 2021, the center successfully hosted the China Community Health Association “Community Osteoporosis Prevention and Treatment and Management Training Course.” The center has introduced Fenglin Center’s “combination of general and specialized disciplines” exploration experience and various specialized disease clinics’ community management practical experience at various forums and lectures, winning multiple excellent paper awards. Relying on the achievements from “combination of general and specialized disciplines” construction and its resulting research and projects, Fenglin Center has made significant progress in comprehensive strength, reaching new levels annually since 2015. The center was recognized as one of the first batch of excellent community health service centers in Shanghai in 2016, selected as one of the “National Top 100 Community Health Service Centers” by the China Community Health Association in 2017, and chosen as a pilot site for high-quality community health service center construction in Shanghai in 2022.

3.2 Prospects for “Combination of General and Specialized Disciplines”

The “combination of general and specialized disciplines” ultimately benefits community residents, family doctors, Fenglin Center’s disciplinary construction, and capacity enhancement. For community residents, this model better meets the

diverse medical service needs of chronic disease patients, enabling them to solve most health problems within the community. For family doctors, it provides a growth platform for excellent GPs, enhancing their sense of achievement and improving work initiative and enthusiasm. For disciplinary development, it helps build a “combination of general and specialized disciplines” team with distinctive disciplinary characteristics, strong talent echelons, and innovative consciousness, effectively promoting the benign development of various disciplinary teams in community health service centers. For capacity enhancement, it promotes permeable development in discipline management, talent cultivation, and medical technology, facilitating the construction of “three characteristics” community health service institutions—“characteristics in the center, features in departments, and specialties in individuals”—thereby improving Fenglin Center’s overall level.

However, the purpose of implementing “combination of general and specialized disciplines” is to better optimize services, and the center should avoid overpursuing specialized disease development at the expense of general practice. In the broader direction of national health policy, it is foreseeable that being an excellent community doctor may require more than just solid general medical knowledge; the most welcomed will be those composite talents who are “specialized in one area but capable in many.” The next steps for “combination of general and specialized disciplines” require further enhancement in depth, breadth, and temperature.

- (1) **Strengthening connotation construction in depth:** Greater emphasis should be placed on the quality and effectiveness of specialized disease clinics. The support from medical alliance experts for each specialized disease clinic should be gradually enhanced, and the diagnosis and treatment level of GPs supporting specialized disease clinics in community health service centers should be improved. Equipment and drugs required for specialized disease clinics should be fully and strongly equipped. Meanwhile, community publicity should be strengthened to improve residents’ awareness, further increase specialized disease clinic visits, and enhance residents’ sense of gain from visits.
- (2) **Expanding coverage in breadth:** The scope of specialized disease categories should be expanded to cover common chronic and frequently occurring diseases in the community. The scope of specialized disease GPs should be broadened so that each GP possesses at least one specialized disease expertise.
- (3) **Strengthening integration with family doctors in temperature:** The advantage of family doctors in the general service team who are familiar with contracted patients’ conditions should be leveraged to enable family doctors to guide community residents in need to specialized disease clinics. After consultation, family doctors should continuously implement chronic disease management and rehabilitation services in the community, promoting the linkage of “specialized disease clinic—station—family.”

The “combination of general and specialized disciplines” represents an effective and feasible approach for community health service centers, avoiding medical service homogenization and enabling these centers to better safeguard community residents’ health. Through continuous exploration and attempts, gradually establishing solid general practice services while developing several distinctive specialties may become a service model worthy of reference for numerous community medical institutions.

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