
RESEARCH ARTICLE

Development Status of Continuity of Care in China

Huimin Qin

Continuity of Care Department: College of Nursing University: Youjiang Medical University For Nationalities, Baise, China

Corresponding Author: Huimin Qin, **E-mail:** qinhuimin100@163.com

ABSTRACT

In this paper, the author has reviewed the definition of continuity of care, its development process, development model and development status, indicating the current state of the research and its deficiencies and putting forward targeted suggestions. The author believes that China should continue improving relevant policies and systems, vigorously develop internet-based continuing care services, and innovate the service models of continuity of care. Finally, it has an outlook on the future development of the models so as to provide some references for developing continuity of care in China.

KEYWORDS

Continuity of care; definition; "Internet Plus"; review

ARTICLE INFORMATION

ACCEPTED: 25 January 2023

PUBLISHED: 03 February 2023

DOI: 10.32996/bjns.2023.3.1.1

1. Introduction

In recent years, China has been giving increasing support to the development of continuity of care with the issuance of policies such as *The National Nursing Career Development Plan (2016-2020)* (National Health and Family Planning Commission, 2016), *The Guidelines on Promoting the Reform and Development of Nursing Services* (National Health and Family Planning Commission, 2018), etc., which all indicate the need to expand the coverage of nursing services, promote the development of continuity of care, and provide nursing services to community families. With continuity of care, patients can get access to continuous health care services, and their readmission rate can be lowered as well, which helps to save medical resources, reduce medical costs, improve the quality of nursing care and satisfaction of patients, so as to maintain and promote their health.

2. The Definition of Continuity of Care

The definition of continuity of care was first mentioned in 1947 in a research report of The Joint Commission, which stated that the treatment and care a patient received should be transferred likewise without interruption as they transferred from hospitals or other healthcare facilities to their homes or communities (Coleman & Berenson, 2004). In 1969, the definition of continuity of care was formally introduced by the International Council of Nurses (ICN), which was "the provision of medical and nursing services to a patient at the time and place necessary based on his/her needs, which means medical workers can provide patients with collaborative and continuing care according to the patients' conditions with medical security, whether the patients are in hospital, community or their home" (Zhang et al., 2013). With the growing emphasis on continuity of care and research in this area goes deeper, the American Geriatrics Society defined continuity of care in 2003 as "with the design of nursing plans and work, patients can have coordinated, consistent and continuous health care as they are transferred between different health care settings (e.g., from hospital to home) or within the same health care setting (e.g., different departments in a hospital) (Coleman, 2003). In 2017, China included continuity of care in its development plan. In *National Nursing Career Development Plan (2016-2020)*, it is clearly stated that medical institutions should provide a variety of forms of continuity of care services for patients discharged from hospitals, extend nursing services to families and communities, gradually improve the content and mode of services, so as to maintain the continuity of nursing services (National Health and Family Planning Commission, 2016). To sum up, continuity of care is an essential part of clinical care, with its core of ensuring the "continuity" and "consistency" of care services.

Copyright: © 2022 the Author(s). This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) 4.0 license (<https://creativecommons.org/licenses/by/4.0/>). Published by Al-Kindi Centre for Research and Development, London, United Kingdom.

3. Current Status of Research on Continuity of Care in China

3.1 Development of Continuity of Care

The model of continuity of care was first introduced in China by Hong Kong Professor Jinyue Huang in 2011, and an application study of the continuity of care for diabetic patients was conducted (McMurray, 2004). In China, the model of continuity of care was mainly applied in the chronic diseases area. Also in 2011, *The Outline of the Development Plan of Nursing Career in China (2011–2015)* was issued by the Ministry of Health, indicating that nursing services should be extended to families and communities, with more emphasis should be laid on the continuing care and rehabilitation for patients (Ministry of Health, 2012). This shows a growing interest in continuing care by the state and the medical profession, and it requires nursing workers to improve their clinical practice, carry out continuing care services, and guarantee the quality of care while improving the coverage and mode of service.

3.2 Elaboration of Continuity of Care

Research on continuity of care was started relatively late in China. According to the literature, there are 3 practice models of continuity of care in China, namely the community-based model, the hospital-based model and the internet-based model. The first model is carried out or led by the community, which includes regular home visits by community nurses to discharged patients, health education posters, lectures, health manuals, etc. The second one is carried out or led by hospitals, including telephone follow-up visits and home visits (Ke, 2015). The third one is an internet-based model, including health education on the online platform, creating WeChat groups for patients, building continuing care service centers, etc.

3.3 Deficiencies and Enlightenment of Continuity of Care

There are obvious deficiencies in terms of community-based continuity of care in China, such as the nursing management, the staffing structure and the community-level human resources (Li, 2020), making it difficult to carry out continuing care in the community. As China enters an aging society, the traditional medical model is far from satisfying people's needs, so it is necessary to establish a sound community medical system, improve the community-based continuing care system, continue to increase the number of nurses, combine the performance assessment with rewards and merits, motivate nurses by leaning towards front-line clinical nurses and grass-roots nurses, which highlights better payment for better work (Editorial Department, 2022), and further accelerate the development of continuity of care. In addition, it is recommended that the administrative department formulate and issue policies to promote the practice of community-based continuing care services so as to make the community play a bigger role in carrying out continuing care services.

The essence of hospital-based continuity of care is to enhance the self-care ability of patients or their families with health education by medical workers. Continuity of care can be carried out by building a multidisciplinary team (MDT) collaborative health management model, which is an integrated care model with a relatively fixed working group of two or more different professionals to propose a plan that is good for the diagnosis and treatment of patients (Song et al., 2010). It includes the effect evaluation and quality improvement, and the effect evaluation is the final indicator for deciding whether an intervention should be adopted (Chen et al., 2021). In a study made by Du et al. (2020), the quality of life of patients in the experimental group was significantly improved during the nurse-led continuing care for patients with atrial fibrillation by an MDT consisting of a follow-up nurse, cardiologist, electrophysiologist, psychologist, and kinesiologist.

With the continuous development of the Internet and information technologies, internet technologies have been widely used in many aspects of health care. The "internet plus health care" model has become the new norm, which involves medical consultation, e-prescription, health management, health consultation and other medical health management (Ding, 2018), so carrying out continuing care has become the tendency. At present, some of the studies in China implement the continuity of care program based on the WeChat platform, mobile medical app, etc. (Tan, 2019; Yang, 2018). However, for a large number of elderly people in China, the internet-based care program is not a good option for them. They don't know much about it and feel a lack of security and trust in using it (Abdurahman et al., 2022). This is because they are unfamiliar with the operation of mobile devices, which is difficult for them, and they are less educated, which directly affects the effectiveness of internet-based continuity of care. Therefore, how to adapt the Chinese elderly to the Internet plus model is an important part of carrying out the Internet plus continuity of care. Therefore, the Internet plus health care knowledge should be promoted, and training in internet knowledge and skills should be conducted. Williams et al. (2014) conducted training for elderly patients with COPD before their discharge, which showed that the patients were able to learn quickly regardless of their previous internet knowledge level. In addition, as we are in a big data era, information technologies should be fully utilized to create a medical and health database for patients to share information resources among various medical institutions.

4. Tendencies in the Future Development of Continuity of Care in China

According to the latest demographic data, China has entered an aging society (Office for National Statistics, 2022). Therefore, middle-aged and elderly people are the main targeted groups for continuing care services in China. China attaches great importance to the development of continuity of care and has implemented policies such as *Outline of the Healthy China 2030 Plan*

and the Opinions of the State Council on Accelerating the Development of the Elderly Service Industry, which have contributed to the development of continuity of care modes such as hospital discharge planning, referral services, long-term care, home care, chronic disease case management, follow-up consultation and outreach service (Chen et al., 2017). In this context, the quality of continuity of care services should be improved, the modes of continuity of care services should be innovated, professional medical teams for continuity of care should be established, and the building and qualification of talents in the continuity of care should be strengthened, and data and information technologies should be used to achieve integration of hospitals, communities and elderly institutions, so as to make continuity of information, care and relationships possible.

In 2019, the National Health Commission of the People's Republic of China officially extended the *Pilot Program of Internet plus Nursing Services*, and the program will be piloted in six developed provinces and cities in China to provide "online application and offline services" for patients with mobility problems at home (Yu et al., 2021). The existing technology platforms in China include "U care", "Homeincare", "Goldnurse", "Jianhubao", etc. (Wu et al., 2021). Patients or family members just need to place an order on the online app, and a professional nurse will provide home care services. However, in the context of the tense doctor-patient relationship in China, nurses are not very motivated due to concerns about their own safety and the difficulty of handling potential nursing service disputes, as well as concerns about the reliability of the platform and the perfection of relevant regulations (Ju et al., 2022). In addition, a survey by Anji Ren et al., where 346 randomly-selected nurses who registered on the Homeincare platform were involved (Ren et al., 2020), found that 97.40% of the nurses were willing to provide nursing services this way, and they indicated that this approach could improve nurses' self-efficacy and reduce their burnout. In the future, relevant policies are needed to improve to protect home visiting nurses, strengthen the supervision of the platforms, clarify patients' medical data and family information, and protect the rights and interests of patients.

It is recommended to innovate the models of continuity of care and encourage medical institutions to innovate and develop diversified care services. Besides, relevant knowledge about the Internet plus model should be popularized among patients with self-care abilities, and training should be provided to those unfamiliar with how to use the smartphone medical APP. And the building of individual medical information systems should be accelerated to ensure a clear and transparent continuing care process and improve the program for the care effect monitoring. In addition, with the improvement of technology, it is becoming increasingly common to monitor individual health status with smart wearable devices. In the future, an attempt should be made to develop comprehensive health monitoring devices which can be integrated with big data information management to establish a close connection with medical institutions so as to guarantee the continuation of information, care and relationship.

5. Summary

Continuity of care is an essential part of nursing care, and research in this field was started late in China. With analysis and research on the existing problems such as imperfect community-based care system, unclear content of continuity of care, poor connection between patients and medical institutions, and incomplete and imperfect continuing care system based on the Internet plus model, this paper puts forward relevant suggestions and makes an outlook on its development tendency in the future. It concluded that the internet-based continuing care model will be the main development tendency in this field in China.

Funding: Please add: "This research received no external funding", or "This research was funded by NAME OF FUNDER, grant number XXX" and "The APC was funded by XXX".

Conflicts of Interest: The authors declare no conflict of interest.

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

References

- [1] Abdurahman, N., Zhao, J. L., Zhang, W. H., & He, G. X. (2022). Analysis on the awareness and utilization of Internet+ health care in elder population. *Health Soft Science*, 36(4), 92–96.
- [2] Chen, W. J., Lin, Q. R., & Di, C. Q. (2017). The exploration of transitional care practice and the thinking for the future development tendency. *China Nursing Management*, 17(4), 444–448.
- [3] Chen, X. Y., Zhou, J. F., & Hua, H. Y. (2021). Development status quo of transitional care model in the United States and its enlightenment to China. *Nursing Research*, 35(18), 3293–3297.
- [4] Coleman, E. A. (2003). Falling through the cracks: Challenges and opportunities for improving transitional care for persons with continuous complex care needs. *Journal of the American Geriatrics Society*, 51(4), 549–555. <https://doi.org/10.1046/j.1532-5415.2003.51185.x>
- [5] Coleman, E. A., & Berenson, R. A. (2004). Lost in transition: Challenges and opportunities for improving the quality of transitional care. *Annals of Internal Medicine*, 141(7), 533–536. <https://doi.org/10.7326/0003-4819-141-7-200410050-00009>
- [6] Ding, X. C. (2018). *Research on the development of the american health industry* [Doctoral dissertation, Jilin University]. CNKI. <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CDFDLAST2019&filename=1019000991.nh>

- [7] Du, Y. X., Wu, F. Q., Lu, X. Y., Chen, R. M., & Zhang, Y. (2020). The application effects of continuous nursing care in the management of patients with atrial fibrillation by a nurse-led multidisciplinary team. *Chinese Journal of Nursing*, 55(7), 969–974.
- [8] Editorial Department. (2022). Strengthening nursing information construction, National Nursing Development Plan (2021-2025) released. *Journal of Medical Informatics*, 43(6), 102.
- [9] Ju, Y. Y., Gao, W. J., & Shen, G. D. (2022). Survey on the willingness of nurses to participate in "Internet Plus nursing service": the influencing factors. *Journal of Nursing*, 37(6), 88–91.
- [10] Ke, W. (2015). The impact of hospital-based continuity of care on patients with coronary artery disease combined with heart failure. *Qilu Journal of Nursing*, 21(21), 50–51.
- [11] Li, J. (2020). Current situation and development of continuous nursing management in the community. *Chinese Community Physicians*, 36(2), 6–7.
- [12] McMurray, J. (2004). The high-risk infant is going home: what now? *Neonatal Network*, (1), 43–47. <https://doi.org/10.1891/0730-0832.23.1.43>
- [13] Ministry of Health. (2012). Notice of the Ministry of Health on printing and distributing the "outline of china's nursing career development plan (2011-2015)". *Bulletin of the Ministry of Health of the People's Republic of China*, (1), 46–51.
- [14] National Health and Family Planning Commission. (2016). Notice of the National Health and Family Planning Commission on the issuance of the national nursing career development plan (2016-2020). *Gazette of the National Health and Family Planning Commission of People's Republic of China*, (11), 24–30.
- [15] National Health and Family Planning Commission. (2018). Notice on the issuance of guidance on promoting the reform and development of nursing services. *Gazette of the National Health Commission of the People's Republic of China*, (6), 26–30.
- [16] Office for National Statistics. (2022). "2021 statistical bulletin on national economic and social development" released. *National Library Journal*, 31(2), 84.
- [17] Ren, A. J., Pan, S., Deng, H. J., Wang, Y. F., Luo, J. F., & Li, X. H. (2020). Nurses' participation in "internet plus nursing service"; a survey based on the homeincare platform. *Journal of Nursing*, 35(5), 56–59.
- [18] Song, P., Wu, Q., & Huang, Y. (2010). Multidisciplinary team and team oncology medicine research and development in China. *Bioscience trends*, 4(4), 151–160.
- [19] Tan, G. R. (2019). *Application of transitional care based on the mobile medical app in patients with the chronic obstructive pulmonary disease* [Master's thesis, Guangxi Medical University]. CNKI. <tps://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202002&filename=1020069009.nh>
- [20] Williams, V., Price, J., Hardinge, M., Tarassenko, L., & Farmer, A. (2014). Using a mobile health application to support self-management in COPD: a qualitative study. *British Journal of General Practice*, 64(624), e392–e400. <https://doi.org/10.3399/bjgp14X680473>
- [21] Wu, M., Zhang, Y. M., Song, L. X., & Linghu, Y. S. (2021). Analysis of domestic "internet+nursing service" research tendencies and frontiers. *Chinese Journal of Clinical Research*, 34(2), 279–282. <https://doi.org/10.13429/j.cnki.cjcr.2021.02.035>
- [22] Yang, Y. (2018). *Effect of extended nursing intervention based on WeChat platform on the quality of life in children with wilms' tumor after operation* [Master's thesis, Zhengzhou University]. CNKI. <https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202201&filename=1018107832.nh>
- [23] Yu, L. Y., Fu, J. J., & Yang, Y. (2021). Investigation and analysis of nurses' cognition and intention on "Internet plus Nursing Service". *Chinese General Practice Nursing*, 19(4), 452–457.
- [24] Zhang, P. P., Wan, Q. Q., & Da, Z. Z. L. Z. (2013). Development and status of continuing care in the field of geriatric care in Japan. *Chinese Nursing Management*, 13(10), 42–44.