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Patient satisfaction evaluations in different clinic care models: Care stratification under a national demonstration project

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ABSTRACT

Primary Community Care Networks (PCCNs) were the product of primary care health reform in Taiwan. Under the PCCN intervened nationwide as a demonstration project, there were three types of service contexts for clinic patients: (1) member patients in PCCN clinics; (2) non-member patients in PCCN clinics; and (3) patients in non-PCCN clinics. A multi-site, cross-sectional validated survey of 3143 outpatients receiving care in clinics was conducted to investigate quality of care delivered to these three distinct clinic patients. It revealed that member patients indicated a higher level of satisfaction with the care quality of several physician–patient relationships and an increased willingness to recommend their clinics over non-member patients in PCCN clinics. However, no differences were found in the care quality evaluation measures between PCCN member patients and non-PCCN patients. Health policy implications were discussed for primary health reforms in clinic service contexts in this study.

1. Introduction

The SARS epidemic challenged Taiwan public health and the healthcare system in Spring 2003. Citizens' freedom to voluntarily select their own medical providers complicated matters for the National Health Authority, an organization that sought to control and trace the direction and progression of the epidemic. This event precipitated the Taiwanese National Health Authority to reconsider what transpired with respect to the traditional, fragmented healthcare providers in Taiwan. "Primary Community Care Network (PCCN) Demonstration Project" was one of the resulting health reforms, a nationwide healthcare financing program funded by the Bureau of National Health Insurance (BNHI) in 2003. The PCCN served as a new model for the Taiwanese government to redefine the role of clinic physicians in the healthcare delivery system (Bureau of National Health Insurance in Taiwan, 2009).

A PCCN consists of a group of clinic physicians whose medical jobs are viewed as family care, and these clinics have to cooperate with at least one hospital for patients' secondary or tertiary care. A PCCN consists of 5–10 clinics: half of them should offer the services of general medicine, internal medicine, surgery, obstetrics and gynecology, pediatric, or family medicine. And the specialty clinics, usually handling the outpatients with mild illnesses, less complicated symptomologies than hospital specialties, are also allowed to join the PCCN demonstration project, including those who practice Otolaryngology, Ophthalmology, Rehabilitation Medicine, Dermatology, and Psychiatry (Bureau of National Health Insurance in Taiwan).

One of the major tasks for clinic physicians in a PCCN is to recruit their patients to become PCCN patient members. The PCCN patient members have the extra benefits from their clinic physicians, including filed personal and family medical/health information for further health maintenance assists and suggestions; accessed 24-h a day, 7-day a week medical consultation telephone lines when their family physicians are off; approaching free medical brochures, health or medical lectures; reminded timing of health examinations; provided health education for the chronic disease management, and so on. Under the implementation of the PCCN demonstration project in Taiwan, outpatients seeking clinic services can be categorized to three types of service contexts: *member patients in PCCN clinics (Patient Type I)*; *non-member patients in PCCN clinics (Patient Type II)*; and *patients in non-PCCN clinics (Patient Type III)* (see Fig. 1).

It has been 5 years since the Taiwan Health Authority launched the health reform of the PCCN demonstration project and the project is still going on. However, few studies have attempted to examine the possible effects of clinic services delivered in the

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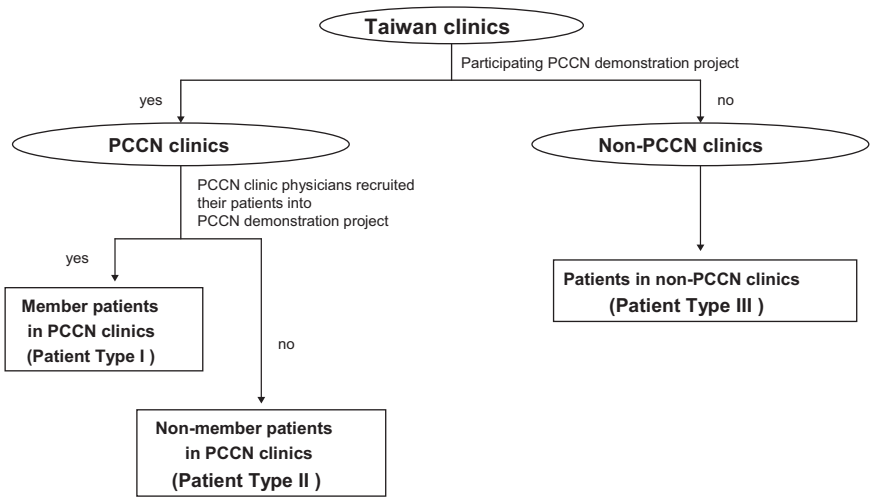

Fig. 1. Categories of clinic outpatients under the implementation of the PCCN demonstration project in Taiwan.

three different service contexts. Our study was aimed to investigate whether there exist different patterns of quality of care delivered to three distinct clinic patients under the implementation of PCCN demonstration project. The findings would provide health policy implication about whether the PCCNs were organizational innovations for patients, worthy of increased diffusion, and meriting further exploration.

2. Method

This study was aimed to evaluate and compare how patients in the three different care service contexts ranked with regard to service satisfaction, applying an ecological design.

2.1. Survey instrument development: patient satisfaction to primary care clinics' service quality

In order to compare the three different service contexts of clinic care – member patients in PCCN clinics, non-member patients in PCCN clinics, and patients in non-PCCN clinics, the question items on the survey could not be limited to the characteristics and values specified in the PCCN clinics in this study. Rather, the general dimensions commonly described in service quality of primary care were included in the questionnaire. The structured questionnaires were first drafted from a thorough review of the previous literature (Institute of Medicine, 1996; Scheffler et al., 1978; Starfield, 1992; Baker et al., 2003, 2002; Borowsky et al., 2002; Polluste et al., 2000; Razzouk et al., 2004; Sampson et al., 2004; Wensing et al., 1998; Zebiene et al., 2004) and then examined by two academic professors and two clinic physicians to assure their logic, accuracy, and feasibility. To be practical, we chose ten items to cover as many dimensions of clinic care quality as possible. In addition, we expect the findings to serve as a framework for policy makers and health-care providers to examine each of them for their potential contributions toward quality improvement. As a result, ten items – satisfaction for wait time, employee courtesy, physician competency, the humaneness of understanding and explanation to patients, and the concept of modern preventative and chronic illness management – were included, using a 5-point Likert scale. Overall patient satisfaction (also using a 5-point Likert scale) and patient willingness to recommend their surveyed clinics (using a "yes" or "no" response) were also measured. One pilot study was pre-tested for 25 patients who experienced clinic visits. The wordings and meanings of each question item were revised to ensure content validity. Ten items were loaded into one common factor through a factor analysis, and the Cronbach α value was 0.889. Patient demographics and socioeconomic factors – all of which were verified to be associated with patient satisfaction (Bonds et al., 2004; Fan et al., 2005; Jung et al., 2003) – were included in the questionnaire. These factors comprised: gender, age, education, and whether the patients visited the surveyed clinics or not when they presented similar symptomatologies (i.e., frequent patients). In addition, the visiting clinic characteristics were also collected, including clinics' location (non-urban vs. urban), specialty, and area competition (i.e., counted as number of the clinics in the county/city level).

2.2. Study subjects

We focus on all 416 participating clinics (i.e., PCCN clinics) located in the administrative areas of the middle branch of BNHI in this study. In order to effectively compare three different service contexts, it is necessary to identify the non-PCCN clinics relative to PCCN clinics. Two criteria were used to identify the respective non-PCCN clinics: (1) the respective non-PCCN clinics provided the same medical specialties as the PCCN clinics and (2) the respective non-PCCN clinics were located in the same market districts as the PCCN clinics. The studied PCCN clinics were excluded in our sample when their respective non-PCCN clinics with the same service lines and in the same district areas could not be identified. In addition, the studied PCCN clinics – those that were closed during the surveyed time period and those that declined to participate in our patient surveys – were also excluded. Finally, 324 PCCN clinics, out of total of 416 clinics, were included in this study. There were no significant differences noted with regard to the excluded and included PCCN clinics, according to geographical distribution ($\chi^2=0.214$, $p>0.05$). Among the selected PCCN clinics, 89 specialized in General Medicine, 26 specialized in Internal Medicine, 12 specialized in Surgery, 33 specialized in Obstetrics and Gynecology, 54 specialized in Pediatrics, 40 specialized in Family Medicine, 40 specialized in Otolaryngology, 15 specialized in Ophthalmology, 4 specialized in Rehabilitation Medicine, 9 specialized in Dermatology, and 2 specialized in Psychiatry; the same medical specialty distribution in the other 324 respective non-PCCN clinics.