Population Health *Matters*

Fall 2014
Vol. 27, No. 4

Exploring Attitudes toward Physician-Nurse Collaboration within a Team-Based Primary Care Environment

Across the globe, the aging population is increasing and likely increasing the demand for advanced coordinated care for a host of chronic conditions.[1,2] Historical approaches toward primary care may not be capable of delivering the scope and scale of services needed for this challenging population. It has been argued that the delivery of primary care must include collaboration and coordination among healthcare professionals in order to achieve the necessary continuity of care for different types of patients.[3] Many primary care models, such as the Integrated Care Pilot in the United Kingdom and the Expanded Chronic Care Model in multiple Canadian provinces, have been developed and tested to approximate the required levels of care.[4,5] Despite differences in their specific requirements and workforce composition, these innovative models of care attempt to shift primary care from a reactive, episodic approach to a more proactive, population health type strategy using dedicated methods of coordination. Despite some progress in the implementation of these models, some researchers have expressed cautious optimism regarding the evolution of primary care, citing a lack of physician buy-in towards care integration and collaboration with other professionals within the practice.[2,6,7]

In Italy, primary care is considered the backbone of their national healthcare system and is provided to all citizens by independent general practitioners, who act as gatekeepers to the rest of the healthcare system.[8] During the last 10 years, the Italian national healthcare system introduced reforms that encouraged general practitioners to organize into collaborative arrangements to create a network designed to better coordinate patient care. The Chronic Care Unit (Moduli) is one such reform where a multidisciplinary team of general practitioners, physician specialists, and nurses delivers care to a population of approximately 10,000 individuals within the local health authorities of the Tuscany region. This team, led by a general practitioner, uses a combination of targeted interventions, patient education materials, disease registries, and integrated information systems to help provide population management services to patients with chronic-care needs.

While the Chronic Care Unit model may be a key component of primary care reform within Italy, it is unclear how well clinical staff members are working together during its implementation, raising questions on how successful the model could be at achieving its objectives. To better understand this issue, we used an adaptation of the Jefferson Scale of Attitudes towards Physician-Nurse Collaboration (JSAPNC) to determine current expectations of shared collaboration between physicians and nurses in the Chronic Care Units.[9] The JSAPNC was initially developed in 1999 to measure attitudes towards collaboration between nurses and physicians in a hospital setting. The survey contains 15 items answered on a 4-point Likert-type scale addressing the following physician-nurse domains: interactions, decision-making, role expectations, authority, and responsibilities for patient care and monitoring. The survey was translated into Italian and certain questions were modified to reflect the outpatient nature of the Chronic Care Units. An online version of JSAPNC was then sent to 218 general practitioners and 46 nurses working in 23 Chronic Care Units across two local health authorities of Tuscany: Prato and Florence. A total of 94 general practitioners and 39 nurses completed the questionnaire with additional demographic information for an overall response rate of 50.4%.

The Total Score for the JSAPNC survey can range from 15 to 60, with higher scores reflecting a more positive orientation towards nurse and physician collaboration at the practice.[10] A preliminary analysis showed that nurses scored significantly higher than physicians on the JSAPNC (mean of 52.5 ± 4.0 vs. mean of 44.0 ± 7.2, respectively), suggesting a significant disagreement on roles and responsibilities within the practice. For example, nurses scored significantly higher than physicians when asked whether "a nurse should be viewed as a collaborator and colleague with a physician rather than his/her assistant" suggesting disagreement in role expectations (mean score of 3.7 and 3.2, respectively, $p<0.01$).

The results from our survey remain consistent with previous studies that attributed this physician-nurse relationship to a hierarchical model that is prevalent in Italy, where many physicians still view nurses as assistants rather than partners in patient care.[10] The differences found in expectations of physician-nurse collaboration suggest that a significant barrier to the successful implementation of the Chronic Care Unit model may rest on the level of perceived collaboration between key professionals of the practice,[10] and therefore practice culture is an area within the Chronic Care Unit where improvement is needed. In order to ensure long-term viability of the Chronic Care Unit, we argue that future efforts by Tuscany health authorities should be allocated to

CONTINUED ON PAGE 2

both measuring and understanding the critical factors within the physician-nurse relationship. In addition, we believe that data from this research are informative for any institution where population health, team-based primary care approaches, such as the patient-centered medical home in the U.S., are being implemented. The results of our research corroborate international evidence that suggest nurses have a more positive attitude toward clinical staff collaboration than physicians.[10] Although inter-professional education and training are becoming more common components of medical and nursing school curricula in the U.S. and in Europe, continued efforts at the workplace are also needed to gain sustained traction.[11] The progress and sustainability of these primary care models may rest in part on how successful we are in both exploring and improving the collaborative relationships between professionals within each model of care.

Karagiannis T,[1] Coschignano C,[2] Hegarty SE,[3,4] Polenzani L,[2] Messina E,[5] Zoli R,[5] Hojat M,[3] Maio V.[1]

[1]School of Population Health; [2]Local Health Authority, Prato, Italy, [3]Center for Research in Medical Education and Health Care, [4]Division of Biostatistics, Department of Pharmacology and Experimental Therapeutics, Thomas Jefferson University, 5Local Health Authority, Florence, Italy.

For more information on this project contact Vittorio Maio, PharmD, MSPH at Vittorio.Maio@jefferson.edu.

REFERENCES

1. Arend J, Tsang-Quinn J, Levine C, Thomas D. The patient-centered medical home: History, components, and review of the evidence. *Mt Sinai J Med.* 2012;79(4):433-450. doi: 10.1002/msj.21326 [doi].
2. Karagiannis T, Maio V, Del Canale M, Fabi M, Brambilla A, Del Canale S. The transformation of primary care: Are general practitioners ready? *Am J Med Qual.* 2014;29(2):93-94. doi: 10.1177/1062860613513077 [doi].
3. Saltman RB, Rico A, Boerma Wienke. Primary care in the driver's seat? Organisational reform in European primary care. *European Observatory on Health Systems and Policies Series*. Open University Press; Maidenhead; 2006.
4. Delon S, Mackinnon B, Alberta Health CDM Advisory Committee. Alberta's systems approach to chronic disease management and prevention utilizing the expanded chronic care model. *Healthc Q*. 2009;13 Spec No:98-104.
5. Harris M, Greaves F, Patterson S, et al. The north west London integrated care pilot: Innovative strategies to improve care coordination for older adults and people with diabetes. *J Ambul Care Manage*. 2012;35(3):216-225. doi: 10.1097/JAC.0b013e31824d15c7 [doi].
6. Nutting PA, Crabtree BF, McDaniel RR. Small primary care practices face four hurdles--including a physician-centric mind-set--in becoming medical homes. *Health Aff (Millwood)*. 2012;31(11):2417-2422. doi: 10.1377/hlthaff.2011.0974 [doi].
7. Nutting PA, Miller WL, Crabtree BF, Jaen CR, Stewart EE, Stange KC. Initial lessons from the first national demonstration project on practice transformation to a patient-centered medical home. *Ann Fam Med*. 2009;7(3):254-260. doi: 10.1370/afm.1002 [doi].
8. Thomson S, Osborn R, Squires D, Jun M. International profiles of health care systems, 2013. *The Commonwealth Fund.* 2013. http://www.commonwealthfund.org/~/media/Files/Publications/Fund%20Report/2013/Nov/1717_Thomson_intl_profiles_hlt_care_sys_2013_v2.pdf. Accessed September 13, 2014.
9. Hojat M, Fields SK, Veloski JJ, Griffiths M, Cohen MJ, Plumb JD. Psychometric properties of an attitude scale measuring physician-nurse collaboration. *Eval Health Prof*. 1999;22(2):208-220.
10. Hojat M, Gonnella JS, Nasca TJ, et al. Comparisons of American, Israeli, Italian and Mexican physicians and nurses on the total and factor scores of the Jefferson scale of attitudes toward physician-nurse collaborative relationships. *Int J Nurs Stud*. 2003;40(4):427-435. doi: S0020748902001086 [pii].
11. Bernabeo E, Holmboe ES. Patients, providers, and systems need to acquire a specific set of competencies to achieve truly patient-centered care. *Health Aff (Millwood)*. 2012;32(2):250-58.