

Value-based care and the necessity of economic evaluation of nursing services

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Letter to Editor

Economic evaluation is an invaluable and important tool in healthcare decision- and policy-making. The volume-based paradigm has been a prominent tool to evaluate healthcare economy for consecutive decades. In this approach, the main focus is on volume of treated patients alongside to reduce healthcare costs. Despite this view and during recent years, there was a dramatic rising in healthcare costs without attaining excellence in quality and health outcomes. This status is escalating to the point at which governmental budgets, service providers, and patients are unwilling or unable to afford its related costs (1). There is a similar situation in high-income countries that spend several times more money on health than middle-income and low-income countries (2).

The experts believed that one of the most important and underlying causes of this situation is ineffective healthcare service models that resulted in fragmentation, lack of coordination, reduced quality of care, and finally increased health costs (3). It is assumed that the health service delivery models can seriously affect health costs. Accordingly, health economics does not only refer to health costs but also it includes quality improvement, access to, and equity of health services (4).

For the first time in 2006, “value-based care” was developed to evaluate healthcare economy (5). This paradigm which is also considered a kind of healthcare delivery model, is based on patient outcomes payment as an alternative for the fee-for-service model of payment. Based on this approach, healthcare providers such as physicians and nurses will be rewarded when their services improve the health of patients, reduce the complications, and help to make a healthier life for patients (6); while the population transition to old age and an increase in noncommunicable diseases which require behavioural approaches for modifying risk factors in addition to acute care only, are also fueling the mandate for change. Therefore, 30% of healthcare payments in the US by the end of 2016 and 50% of payments by the end of 2018 were tied to the value-based care approach. Based on that, new institutions such as Accountability Care Organizations (ACOs), Advanced Primary Care and Integrated Care models were launched (7). The focus of these institutions is on effective care pathways which, along with the reduction in health care costs, lead to prevention and primary care (7). The principals of new payment model are greater teamwork and

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integration, more effective coordination of health providers across settings, greater attention to population-based healthcare, and providing information system to improve care for patients (7).

A report in 2011 entitled "The future of nursing: leading change, advancing health" asserted that despite the financial concerns, nursing service can on the one hand address the increasing demand for safer and high-quality healthcare and on the other hand, create equitable and affordable access to health services for societies (8).

The report believed that nursing practice covers a broad continuum from health promotion, to disease prevention, to coordination of care, to cure-when possible-and to palliative care-when cure is not possible. Therefore, nurses have a direct and indirect effect on patient care. They can provide assessments and care in hospitals, nursing homes, clinics, schools, ambulatory settings, and workplaces and accordingly they can contribute to the provision of accessible, equitable, and high quality care in healthcare system.

From value-based model perspective, quality, access, and value are key indicators that are specific and sensitive to health service effects on health economics (1). Evidence reveals that nursing services can surprisingly affect these three indicators. However, there are few studies showing that the development of nursing services results in lower costs, along with increased service quality. Of course the evidence in favor of such a conclusion is growing. The current evidence on these indicators are as follows:

Nursing and health service quality

Although causation is difficult to prove, an emerging body of literature has revealed that the quality of care depends, in a large degree, on nurses. The association between nursing care and quality of hospital care such as patient outcomes, including lengths of stay, mortality, pressure ulcer, deep vein thrombosis, and hospital-acquired infections has been published in several studies (9-11). Studies have shown the role of nurses in improving the quality and efficacy of hospital (12,13). However, the extent to which nursing care has an impact on health and life or death issues is still ambiguous (8) Also, the patient-centered nursing care has recently been discussed as a cause of patient satisfaction which is an indicator of the delivered service quality in all over the world (14,15).

Nursing and access to health services

Evidence suggests that access to quality care can greatly be expanded by developing the use of nurses in primary, chronic, and transitional care from hospital to home. For example, If nurses are involved in special roles such as care coordinators or primary healthcare providers, that increase the level of access to services, the hospitalization and rehospitalization rates of patients will be reduced. A 52% reduction in emergency department (ED) visits with a cost per admission of at least \$800 has been mentioned as a result of nursing postoperative visits and telephone

follow-ups (16). In the coordination of transitional care from hospital, nursing visits during a three-month transition period in patients with heart failure showed the average savings of \$4,845 per patient with a significant increase in survival and fewer readmissions (17). Also, performed activities such as self medication management and referral care coordination by nurses in community-based or ambulatory care settings can save \$686 per patient in a 12-month period (18).

Nursing and value of health services

The value in healthcare is expressed as the physical health and sense of well-being achieved relative to the cost. There is little evidence at the macro level indicating that the development of nursing services results in cost savings to society while promoting outcomes and ensuring quality (19). For example, managing nursing work hours is dramatically associated with 1.5 million fewer hospital days, nearly 60,000 fewer inpatient complications, and 0.5 percent reduction in costs (20).

Overall, it seems that we need to conduct precise studies at macro-level to assess the net economic effects resulting from nursing care delivery models in order to seriously integrate them into health policy. Also, understanding the impact of nursing care on the health system requires the data to enable nurses have more effects on healthcare transformation.

Key words: value-based care, nursing services, economics

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