

# NURSE STAFFING

## NURSES' EDUCATION LEVEL CAN INFLUENCE PATIENT AND SYSTEM OUTCOMES IN COMMUNITY HOME NURSING

### Source

O'Brien-Pallas, L., Doran, D. I., Murray, M., Cockerill, R., Sidani, S., Laurie-Shaw, B., & Lochhass-Gerlach, J. (2001). Evaluation of a client care delivery model, part 1: Variability in nursing utilization in community home nursing. *Nursing Economic\$, 19*(6), 267-276.

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### Objective

To examine the influence of client, provider and agency characteristics, agency behaviours and complexities in the work environment on nursing utilization (the number and length of home visits) and on client outcomes in community home nursing.

### Background

With the shift from institutional to community-based care, there has been a substantial increase in money spent on home care. Nursing services account for a large proportion of home care costs. One option for reducing costs is to substitute less skilled nursing personnel for RNs. With earlier hospital discharges, the needs of clients in the community are often more complex and acute than in the past. Little is known about how to predict and measure the way nurses<sup>1</sup> are used in the community. There is also little information about the factors that influence the cost and quality of home care services.

### Methods

- A longitudinal design was used to test the Client Care Delivery Model for Community Home Nursing. The OMAHA Problem Rating Scale<sup>2</sup> was utilized to measure clients' knowledge (what a client knows and understands about a specific health related problem), behaviour (what a client does – the client's practices, performances, and skills), and status related to health care needs (a client's conditions or circumstances and how these improve, remain stable or deteriorate).
- Other variables examined included:
  - client characteristics (e.g., nursing diagnosis, medical diagnosis), and overall self-reported health status);
  - provider (i.e., nurse) characteristics (e.g., educational level, years of experience in nursing and community nursing, professional status – RN or RPN);

<sup>1</sup> In this study, 'nurse' refers to registered nurses (RNs) and registered practical nurses (RPNs). The title for a practical nurse in Canada, with the exception of Ontario, is licensed practical nurse (LPN). In Ontario, the title for a practical nurse is registered practical nurse (RPN).

<sup>2</sup> Martin, K., & Scheet, N. (1992). *The OMAHA system: Applications for community health nursing*. Philadelphia: W.B. Saunders.

- agency characteristics (e.g., geographic location, visit type);
  - agency behaviours (e.g., caseload, skill mix assignment, continuity of care); and
  - environmental complexity factors (e.g., competing demands, unanticipated case complexity).
- Through a convenience sample of 38 RNs and 11 RPNs from one not-for-profit visiting nurse agency in a large Canadian metropolitan city, a sample of 751 clients (6,840 visits) was obtained.
  - Data were collected by these nurses at client admission and discharge and/or during each visit depending on the variable.

### Principal Findings

The study findings reported in the two journal articles confirm the complexity of client care delivery in the community home nursing sector and draw attention to the many factors that influence nursing utilization and client outcomes. While client factors had the most impact on the outcomes of this study, provider (nurse) and agency characteristics were also important.

This research summary focuses on principal findings related to nurse characteristics.

- Clients cared for by RNs had more positive status outcomes related to their condition at discharge than those cared for by RPNs.
- The knowledge scores of clients improved when nurses had more years of experience in community nursing.
- Baccalaureate-prepared RNs were more satisfied with the adequacy of time available for visits to meet both the treatment and prevention needs of the client.
- Clients cared for by baccalaureate-prepared RNs:
  - demonstrated, on average, an 80 per cent greater likelihood of improvement in knowledge scores and a 120 per cent greater likelihood of improvement in behaviour scores in relation to their health condition at discharge than clients cared for by non-baccalaureate prepared nurses; and
  - required fewer home visits.

### What do the Study Findings Mean?

- Strategies are needed to recruit and retain experienced nurses in community care.
- The professional status and educational level of nurses should be considered an investment when nurses are recruited to care settings requiring greater practice independence and highly autonomous nursing decision-making.
- The services of RNs in the community, especially baccalaureate-prepared RNs, are cost-effective. Clients' needs may be met more efficiently during each visit, thereby requiring fewer visits.

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