The Effectiveness and Efficiency of Providing Homecare Visits in Nursing Clinics Versus the Traditional Home Setting

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Key Implications for Decision Makers

This study investigated the effectiveness and efficiency of delivering homecare using nursing clinics instead of the traditional home visit. Three nursing clinics were built for the purpose of providing homecare to post-acute hospital clients who needed only short-term treatments, such as wound dressings and intravenous therapy. The clinic group and the home group were compared for effectiveness, satisfaction, and costs.

- Community care access centres recorded six million visits in 2002. Approximately 10 percent of these clients could be treated in nursing clinics, saving 146 full-time equivalent registered nurses and $10 million in lower-cost visits.
- The care provided in the clinics was as effective as that provided in the home.
- Both groups were satisfied with the care, but the home group was significantly more dissatisfied with the inconvenience of waiting for the nurse to come to the home.
- The time per visit in the clinic was significantly less than the home visits. Home visits take 32.2 percent longer for direct care and 46.4 percent longer when travel and documentation are included.
- Clients in the home group incurred slightly higher healthcare costs in the six weeks after they were discharged from homecare.

Nursing clinics could best operate in easily accessible places for clients, such as community health centres, and they could also serve clients who, for lack of alternative, go to emergency rooms or physicians’ offices for care.
Executive Summary

Purpose
This study investigated the effectiveness and efficiency of a new method of homecare delivery using nursing clinics instead of the traditional home visit. Three nursing clinics were built and equipped in geographically different areas of a large Canadian city for the purpose of providing homecare to post-acute hospital clients.

Objectives of the Study
- Develop and implement a new model of homecare delivery for homecare services that would better serve post-acute clients;
- Determine the effectiveness of the nursing clinic model of providing homecare;
- Determine if the model is a more efficient way to use nursing resources;
- Determine the satisfaction and acceptability of the clients and nursing staff with the new model; and
- Suggest how the model would complement and be assimilated into the acute and community healthcare sectors.

The Research Design
- The study was a randomized control trial with initial data collection immediately post-randomization and six weeks post-discharge from hospital.

The Sample Size
- The clinics served post-acute, ambulatory community care access centre clients requiring wound dressings, intravenous therapy, and other complex nursing care.
- Of 140 clients discharged from hospital or referred to homecare from their physicians, 99 (70.7 percent) were randomized to home or clinic treatments and retained for a six-week follow-up after discharge from homecare.
- The study participants were healthy, middle-aged adults, of whom 55.6 percent were female and 44.4 percent were male. Approximately 56.6 percent were working, with 36.3 percent retired, unemployed, or disabled. The most common diagnosis for the total group of clients was surgical wound/wound infection (29.3 percent), abscess/cellulites (33.5 percent), and...
percent), fistula/irrigations (12.2 percent), burns (7.1 percent), and leg ulcers (3.6 percent); the remaining 13.5 percent had medical diagnoses.

Methodology

**Effectiveness:**
The effectiveness variables included the Short Form – 36 Health Survey, which measured eight functional and physical health dimensions upon discharge from hospital and six weeks after discharge from homecare. The second effectiveness measure was the average number of visits required for treatment for the home and nursing clinic client.

**Efficiency:**
The efficiency variable was a comparison of time per visit for each group. In addition, the Health and Social Services Utilization Inventory Questionnaire compared the healthcare costs incurred by both groups during the six weeks after discharge from homecare. **Satisfaction:**
The satisfaction of the clients with the service they received was measured by a validated client satisfaction questionnaire, as well as questions measuring the convenience factor of both types of service. The satisfaction of providers was also measured using a new tool specific to nurses working in both the clinic and home setting.

**Results:**
- There were no statistically significant differences for the two groups in terms of effectiveness as measured by the Short Form – 36 Health Survey. This finding supports the hypothesis that the nursing clinics would be as effective as nursing treatment in the traditional home setting. In addition, the improvement in scores shown between the two groups was not clinically significant, except for a greater than 10 point improvement difference in social functioning for the clinic versus the home group.
- The Client Satisfaction Questionnaire, which compared the satisfaction of the clients with the service they received, found that the clients in the home were as satisfied as the clients in the clinic with their treatment. However, more positive responses were elicited for the clinic group compared to the home group for five out of the eight questions.
- The number of home clients who answered “yes” (27.3 percent) to the question “did your home/clinic visit interfere with your planned activities?” was statistically significant compared to the number that answered “yes” (2.3 percent) in the clinic group (p = .001). The comments made by the home clients about the inconvenience of “waiting at home for the nurse” indicates the importance to clients of being able to set their own appointments for treatment and plan their lives accordingly.
The average treatment time for 632 visits of clients being seen in the clinic was 23.87 minutes, compared to the mean of 35.19 minutes for 650 visits for the home group (p < .001). When travel time and documentation were added to the visit time, the difference was 29.62 minutes for a clinic visit and 55.74 minutes for a home visit (p < .001). Travel time accounted for 12.79 minutes between home visits. The results support that the time per visit in a home setting is almost 32.2 percent longer for direct care and 46.4 percent longer when travel and documentation is included. This finding supports that it is more efficient to care for clients in a clinic setting than the home setting.

The healthcare costs, as measured on Health and Social Services Survey Inventory, incurred by the clients six weeks after discharge were not significantly different, totalling $782 in the clinic group and $1,092 in the home group (p = 0.071). However, higher costs were incurred by the home group in the category of physician specialist (p = 0.061), social worker (p = 0.034), scans (p = 0.07), and other tests (p = 0.025).

Implications
The savings of using nursing clinics versus homecare translates into a potential $10 million savings and the release of 146 full-time equivalent registered nurse resources, based on six million homecare visits annually in Ontario (Doran, 2002). In addition, the satisfaction results reveal the home group was significantly less satisfied and inconvenienced waiting to be treated in the home. This study demonstrates that nursing clinics are an effective, acceptable, and more efficient alternative for home visits for certain groups of clients.