Applying Health Promotion Strategies to Wound Management – A Community-based Pilot Project

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Summary

A needs assessment survey of community health nurses in the Waverley and Darlinghurst Community Health Centres in 1995 identified that community health nurses, within their scope of practice, manage a significant number of chronic wounds, including leg ulcers. Restricted access to medical and allied health specialists, newer products and updates on current trends in research were identified by the community health nurses as hindering their holistic management of those with chronic wounds.

This paper discusses how health promotion strategies were used during a wound care pilot project to design, develop and mobilise wound management resources for community health nurses at Waverley and Darlinghurst Community Health Centres. These resources included a resource folder, education sessions and an initial assessment form. Two self-help educational pamphlets – 'Leg ulcer management' and 'Nutrition and wound healing' – were produced for clients.

Surveys were sent to surgical supply companies in the geographical areas of Waverley and Darlinghurst Community Health Centres (the inner-city and eastern suburbs of Sydney, New South Wales) and the information gathered incorporated into a wholesalers' folder that community health nurses could access.

Introduction

It is well-recognised in the literature that more and more people will require health services for the management of leg ulcers and non-healing wounds in the future. Epidemiological studies during the past decade in Western countries have revealed a prevalence of leg ulceration of approximately 1 per cent of the adult population [1-4] and the fact that a high percentage of leg ulcer sufferers are in their mid-70s [1-3]. An Australian study by Baker *et al* showed that 90 per cent of leg ulcer sufferers were aged 60 or older [5]. This is important, because the percentage of elderly people is increasing as the century draws to an end [6].

In Sweden, research has revealed that 82 per cent of leg ulcers in a study were managed by community health nurses [1]. Callum *et al* [7] demonstrated that the ratio of distribution of care of leg ulcers between the community and hospital services was five to one. Recent research substantiates these trends. A study by Carville and Lewin [8] revealed not only that community nurses spend an estimated 45 per cent of direct care time on wound management but also that 48 per cent of the wounds managed in the study were leg ulcers.

The underlying causes and complications of healing of lower limb wounds are complex and extensive. Major causes of leg ulceration are venous and vascular disease, diabetes, malignancy and degenerative bone disorders [1, 4, 8-12].

There is a perception that numerous factors restrict community health nurses' management of wounds, so such nurses were surveyed to determine whether any contributing factors could be identified. While the survey had a very low response rate, it did identify that community health nurses require more information about factors that delay wound healing, as well as improved access to wound management products and related, updated information.

The most commonly identified products nurses had difficulty accessing were compression bandages and stockings. Again, this is important, since venous disease accounts for 70 to 90 per cent of leg ulcers [4, 13] and the most effective treatment for venous ulcers is compression bandaging [14-16].

Thus, a **wound care pilot project** (the project) was designed, in order to increase community health nurses' access to

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resources and specialist knowledge of complications to wound healing. The goal of the project was to help nurses provide more comprehensive, coordinated and holistic wound management in the community.

Method

A seeding grant was sought, and $500 obtained from, the health promotion unit of the South Eastern Sydney Area Health Ser-vice (SESAHS) to implement the project, with an 18-month time-frame selected. The project coordinator, in collaboration with a health promotion officer from the SESAHS, produced the following project strategies to meet the needs of the community health nurses.

- Review and revise current data collection methods, to enable comprehensive and accurate collection of wound manage-ment statistics.
- Design a form that documents wound assessment data, consolidates treatment practices and enhances communication between tertiary and primary health-care settings.
- Review community health service policies on wound management and recommend changes to them, to encourage community health nurses to seek resources and information outside the community setting and thus facilitate holistic and comprehensive management of non-healing wounds.
- Design a wound management orientation package for staff new to the community health services.
- Collaborate with other medical and allied health personnel and community services that manage chronic wounds.
- Provide education sessions for community health staff and local doctors on wound assessment and factors that delay wound healing.
- Organise a self-help education group for elderly people, to provide them with information on skin care, exercise, diet and the resources available if a wound does occur.
- Produce self-help educational pamphlets on 'Nutrition and wound healing' and 'Caring for your leg ulcer'.
- Compile a product resource folder containing information on wound management products, current company representatives and access to products beyond the internal supply avenues.
- Establish links with wholesalers and pharmacies within the geographical area, to identify their policies in relation to the delivery of products and supply schemes for pensioners.

Implementation

Six community health nurses from Waverley and Darlinghurst Community Health Centres and the project coordinator formed a working party to implement the strategies over an 18-month period by separating the strategies into small, manageable tasks and assigning those tasks to members of the working party. Meetings to assess progress were arranged regularly, as were meetings between the project coordinator and the health promotion officer from the SESAHS, to ensure ongoing support and supervision of the project.

The general practitioner (GP) liaison from the SESAHS helped organise a GP seminar, while wound care product and nutritional support companies provided financial support and trade displays. Meanwhile, community nutritionists from the SESAHS's health promotion unit helped the working party design and write the 'Nutrition and wound healing' pamphlet.

The time-frame for completion of the tasks became more flexible as the project progressed, allowing the working party to prioritise and manage client case loads.

Evaluation

Surveys – in the form of a five-point Likert scale – were used to collect data on participant satisfaction for each of the educational sessions, while wholesalers had a form posted to them.

The pamphlets, resource folder and initial assessment form were not formally surveyed, so evaluation of these strategies relied on anecdotal evidence.

Since impact and outcome evaluations were not incorporated into the project design there was no data on the impact of community health nurses' increased knowledge on either their ability to access products from wider sources or wound healing rates.

Results

Quantitative data on the reasons for referral were collected and analysed over a 6-month period at both Waverley and Darlinghurst Community Health Centres, with wound management the most common reason for patient referral to each (Table 1).

All education sessions for community health workers (two physiotherapists also attended) and local doctors were well-received. Topics identified as most useful included holistic

Table 1. Reason for patient referral to each community health care centre for generalist nursing care October 1995 – March 1996.

	Darlinghurst	Waverley
Wound management	149	227
General assessment	123	43
Dosette/medications	37	53
Personal care	35	146
Support (client/carer)	35	14
IV/subcut/imi meds	20	16
Palliative care	18	12
Dementia care assessment	10	68
Eye drops	8	5
Domiciliary nursing care benefit	8	27
Diabetes monitoring/education	5	7
Bowel/colostomy care	5	7
Equipment (pick-up/delivery)	4	11
Health monitoring	4	3
Incontinence management	3	18
Oxygen therapy	3	3
Ear drops	1	-
Nasogastric feeds	1	-
Pain management	1	2
Post-surgical care	1	-
Removal of sutures	1	-
Skin treatments	1	2
Support stockings	–	2
Health advice	–	1

client assessments, compression bandaging and nutritional issues (see Tables 2 & 3). The content of the education sessions was incorporated into a resource folder for community health nurses; it also included journal articles relevant to each topic. Thus, the resource folder contained information on burns, surgical wounds, palliative care and pressure ulcers.

Overall, the response rate from the survey of wholesalers was 50 per cent (six of 12 groups contacted). Each company was able to deliver/send products to the community health centres or clients' homes at a reduced price (Table 4).

Verbal responses to the initial assessment form, the resource folder for community health nurses and the pamphlets 'Caring for your leg ulcer' and 'Nutrition and wound healing' were positive.

Some minor changes to the community health services' wound care policies were made as a result of recommendations from project participants. These included providing a holistic assessment on admission and seeking products from other sources for clients able to pay for them.

Discussion

Four health promotion strategies were incorporated into this project design: limited-reach media, health education, community organisation and primary health care. Limited-reach media strategies empower clients by providing them with relevant information that allows them to take more control of their health [17]. Two pamphlets, 'Caring for your leg ulcer' (to help people with leg ulcers, and their carers, become more informed about the underlying causes of leg ulcers) and 'Nutrition and wound healing', were designed. Each targeted the elderly but the latter has proved a valuable resource for people with a variety of chronic and acute wounds.

Health education

Health education is integral to the role of the community health nurse. The project's health promotion strategy was to increase the knowledge base of community health nurses by way of in-services designed according to needs identified by them. The potential for effective transference of health education information to clients was thus increased. A secondary aim of this strategy was to improve clients' compliance by improving their understanding of disease processes, treatments, self-care and preventive interventions.

Community organisation

Minkler [18] defines community organisation as "the process by which community groups are helped to identify common problems or goals, mobilise resources and in other ways develop and implement strategies for reaching the goals they have set." This strategy was used as a mechanism to identify sources of wound care products and resources other than the traditional one, routine deliveries to the health centres, which is limited. All material obtained was catalogued into resource folders for easy

Table 2. Summary of three inservice education sessions (n =24; responses 23). Answers are on a scale of 1 to 5, 5 being highly useful and 1 not useful at all. The table shows the percentage of responses or the percentage who did not respond.

	5	4	3	No response
• Please indicate how useful this inservice was in:				
– providing you with more knowledge about leg ulcer management	69%	22%	9%	–
– enhancing the knowledge that you have already gained	57%	39%	4%	–
• Please rate the usefulness of each topic to your role in managing leg ulcers:				
– stages of healing	56%	26%	9%	9%
– holistic assessment	61%	13%	17%	9%
– types of leg ulcers/diagnosis	65%	17%	9%	9%
– compression bandaging	74%	9%	9%	8%
– doppler studies	39%	22%	26%	13%
– product review	35%	13%	–	52%
– nutrition issues	61%	13%	13%	13%
– non-compliance	44%	26%	13%	17%
– discharge planning	44%	26%	17%	13%

Darlinghurst Community Health Centre – 24 September 1996 (n = 6; response rate 100 per cent).
Darlinghurst Community Health Centre – 29 August 1996 (n = 7; response rate 100 per cent).
Waverley Community Health Centre – 10 December 1996 (n = 10; response rate 91 per cent).

access in the future. The aim of the strategy was to increase community health nurses' awareness of alternative sources of wound management products.

Primary health care

Primary health care, a level of health service delivery, advocates collaboration among all sectors of society to collectively address health issues [19]. The aim of this strategy was to encourage more collaboration between the public and private health services associated with wound management. It was important for local as well as state and federal organisational change. At a local level the project was collaborative: it involved the GP seminar and a presentation for nurses at St Vincent's Hospital on enhancing the hospital-to-community transition for clients and vice versa. There was also liaison with product wholesalers in relation to improved access to wound care resources for those with wounds in the community. The wholesalers' folder included the names and contact numbers of representatives for more commonly-used products. When, for example, a conflict of opinion arises with respect to the indications/contraindications for a product, the most appropriate product for a certain type of wound or stage of healing and correct product application, the company that manufactures the product in question is best informed on its correct usage. Thus, company representatives are an in-valuable source of information for community health nurses regarding specific products and correct usage.

Policy development is important to this strategy because it encourages organisational change. The revised wound care policy means that community health nurses can now formally seek other avenues of product supply.

A further long-term aim of this strategy is to ensure that the vulnerability of socio-economically disadvantaged groups – such as the elderly, mentally ill or physically disabled with a chronic or acute wound – is recognised. For these people, unobstructed access to wound management resources is integral to improving their health outcomes. Wholesalers were able to assist with the

Table 3. Summary of responses to GP seminar (n = 47; response rate 78 per cent) – same scoring and scale as used in Table 2.

	5	4	3	2
• Please indicate how useful this GP seminar was in:				
– providing you with more knowledge about wound management	20.0%	62.0%	14.0%	3.5%
– helping you meke a more comprehensive assessment of a client with delayed wound healing	20.0%	59.0%	20.0%	0.0%
• Please rate the usefulness of each topic to your role in managing and assessing clients with leg ulcers:				
– community nursing issues	35.0%	40.0%	20.0%	3.5%
– nutrition issues	24.0%	31.0%	38.0%	3.5%
– dermatology issues	27.5%	31.0%	38.0%	3.5%

Table 4. Results of survey to wholesalers and pharmacies (n = 12; response rate 50 per cent).

	Response	
	Yes	No
• Is your company able to:		
– send products?	6	0
(Do you have a set price for postage?)	4	2
(Three had a scale that varied according to weight or price.)		
– deliver products to the client's home?	5	1
(One only to local area, one cash on delivery.)		
– deliver products to the community health centre?	5	1
(One cash on delivery only.)		
• Does your company have any restrictions on delivering or sending products?	3	3
(Two local only; one cash on delivery only)		
• Is your company able to supply packaged products individually instead of in boxes of 10 or 100?	6	0
(For one, depends on the product.)		
• Do you provide discounts for pensioners?	2	4
• If an order for a number of different products was placed, would your company be able to deliver, in bulk, to the community health centre?	5	1
• Would your company provide discounts to community health centre clients?	5	1
(One would, to pensioners only, one only on orders over $200.)		
• Does your company have minimum order restrictions?	2	4

supply of compression bandages and keeping the cost of these to a minimum for elderly clients, who are often socially disadvantaged.

Limitations of the project

Budget and time constraints did not allow for an impact evaluation of the project. It would have been enhanced by collection of impact evaluation data, to ascertain its effect on the clinical skills and knowledge of community health nurses. At the conclusion of the project the community health nurses were not surveyed, so evaluation relied on verbal responses.

The priorities of a community health nurse are to provide holistic assessments and clinical treatments and follow up on the needs of clients being case-managed. As a consequence, community health nurses are restricted in the time they can apply to projects such as that detailed above. Such lack of time impinged on the potential for project members to hold talks in the community on the management and prevention of chronic wounds. Attempts to provide inservice education and liaise with hospital staff regarding wound management in the community was also hindered by time constraints.

This project has highlighted the need for more specialist and multidisciplinary team assessment and review, as well as effective care of complex wounds, in the community to reduce hospital in-patient stays or prevent hospital admissions altogether.

It is of paramount importance that community health nurses be provided with opportunities to adapt their wound management practices according to evidence-based research. The process of wound management in a community health-care setting involves more than a comprehensive understanding of the principles of moist wound healing. Community health nurses must also understand the physiology of wound healing, the differences between acute and chronic wounds, and comorbidities that retard wound healing, in order to facilitate a comprehensive, holistic client assessment and case management approach. They also need to be aware of generic wound management products/devices and avenues of product distribution in their local communities. Further, they must be empowered to facilitate liaison and collaboration with specialists from a broad range of health disciplines.

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