

The Leg Ulcer Prevention Program: nurse perspectives on a multimedia client education package for people with venous leg ulcers

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Abstract

The Leg Ulcer Prevention Program (LUPP) is an evidence-based, multimedia client education package for people receiving care for a venous leg ulcer. The program is delivered in the home via the nurse's tablet personal computer. LUPP aims to assist people to understand and adopt clinically effective leg ulcer treatment and better manage chronic disease risk factors. The program engages clients in the ownership of their ulcer and self-care activities, promoting wound healing and recurrence prevention.

To complement the evaluation of client outcomes when participating in LUPP, the nurse perspective was investigated. A nurse survey and focus group was undertaken to describe and explore the nurse experience and satisfaction with LUPP. Satisfaction with LUPP was found to be high. LUPP demonstrated success in improving client education practices and nurses facilitated positive health outcomes for clients. LUPP was perceived by nurses as a valuable tool to engage clients and themselves in the education of people with venous leg ulcers.

The LUPP: nurse perspectives on a multimedia client education package for people with venous leg ulcers.

Keywords: venous leg ulcer, chronic disease management, client education, health promotion, community nursing.

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What is known

- Knowledge, understanding and support to adhere to treatment and participate in self-management strategies optimises outcomes for people with venous leg ulcers.
- Client education is a strategy used by clinicians to improve knowledge and encourage behaviours to promote better health.

What is contributed

- The LUPP is a multimedia client education package delivered via the nurse's tablet mobile computer, which standardises care in line with best practice principles.
- LUPP was found by nurses to be a tool which promoted engagement of the client and engagement of themselves and which improved nursing practice and client outcomes.
- Nurse satisfaction with LUPP was high and the package was found to improve the quality of client education provided to people with venous leg ulcers.
- The LUPP: Nurse perspectives on a multimedia client education package for people with venous leg ulcers.

Introduction

Leg ulcers are chronic wounds which affect 1–2% of the world's population and venous leg ulcers, the most common

type, represent up to 81% of all leg ulcers¹. These ulcers are known to be painful, may smell, require treatment which may be unacceptable to the person and have been associated with social isolation². Recurrence is common, extending the physical, social and psychological consequences which are suffered³. In Australia, these chronic wounds are suggested to cost the healthcare system \$400–500 million each year⁴. Leg ulcer care is frequently provided in the community and home nursing services spend a large proportion of time providing care to people with leg ulcers⁵. These services are well-placed to implement nurse-led health promotion programs to improve outcomes for this client group.

The Leg Ulcer Prevention Program (LUPP) is an evidence-based client education package for people receiving care for a venous leg ulcer. Recently developed and evaluated by a home nursing organisation in Victoria, Australia, the program aims to assist people with venous leg ulcers to better manage chronic disease risk factors, promote wound healing and prevent ulcer recurrence. The program promotes clinically effective leg ulcer treatment and engages clients in ownership of their ulcer and self-care activities. The opportunity to test the effectiveness of delivering this client education via a multimedia package was possible as nurses in this organisation already use tablet personal computers in their daily practice for managing client care information and records.

The outcomes of clients participating in the LUPP were favourable⁶ and the reader is referred to elsewhere in this journal for more information about the LUPP package, the study design and these findings. Another important component of the evaluation of LUPP was to investigate the nurse perspective. As LUPP was a clinical tool for use in their practice, investigation of their experience was seen as integral to understanding both how LUPP works and any refinements required to the LUPP content and delivery system in the future. This component of the evaluation will be the focus of this paper.

Method

The aim of this component of the evaluation was to describe and explore the nurse experience of and satisfaction with implementing LUPP in the following areas:

- The usefulness of the LUPP package in general and each LUPP session specifically.
- The acceptability of the LUPP in the home care environment.
- The impact of LUPP on client outcomes, client participation and self management.

The methods used were a nurse survey and a nurse focus group. The survey sought opinion from all nurses trained to implement the LUPP education. The focus group was to explore LUPP in greater depth, from the perspective of those nurses most often involved in using it.

Nurse survey

The survey was designed by the research team and considered the content and format of LUPP, delivery using the nurse's computer in the home and the quality of the education delivered in LUPP as compared to the education nurses provided before LUPP. The majority of questions sought feedback using a six-point Likert scale with response categories of 'very poor', 'poor', 'fair', 'good', 'very good' and 'excellent'. The target population was nurses who participated in the LUPP training session and who were at the time of delivering LUPP to clients employed by the organisation. An online survey administrator was used and participation was voluntary. To encourage nurses to be candid, an independent administrator re-identified all data before analysis so that nurses could not be identified from their responses to the survey. The survey was distributed in December 2009 and all responses received by 12 January 2010 were included in the analysis.

Analysis involved reporting of frequencies and descriptive data, accessed using the reporting function of the survey administrator. A Wilcoxon's matched pair test was used to assess the magnitude of differences between ratings of the quality of education provided before the LUPP education and with the LUPP education. To permit this analysis, the data were downloaded into an Excel file and exported to Predictive Analytics SoftWare (PASW) Statistics 18 for MS Windows Release 17.0 (SPSS Inc., Chicago, IL). To optimise the sample in this analysis, thus avoiding low cell sizes, variables were recoded with response categories combined. An alpha level of 0.05 was used to classify the findings as significant.

Nurse focus group

A focus group discussion was convened in February 2010 to gather more comprehensive data about the experiences and impressions of nurses who were the most prolific users of LUPP. A purposive sample of nine nurses, representing all sites implementing LUPP, was invited to participate in the focus group.

The discussion was facilitated by a researcher (CM) who was not involved in the development of the LUPP education and who had experience in the conduct of focus group discussions. Following the discussion, the facilitator recorded unidentifiable observation notes and key points for consideration during the analysis. The digital recording was transcribed professionally and was subject to a confidentiality agreement. Any identifying factors were removed from the transcript prior to it being made available to the researcher (SK) for analysis.

A process of thematic analysis which uses holistic, selective and detailed approaches⁷ was considered as a guide to analysis. The initial reading of the transcript illuminated the most fundamental meaning of the text. Essential

statements that illuminated the most pertinent aspects of the experience were then identified by reading and re-reading the text several times. A line by line review of the text was undertaken to identify individual sentences or sentence clusters which added to the understanding of the experience of the participants. Provisional themes were established and reviewed by the focus group facilitator. The final themes and the analysis process were reviewed by a researcher not involved in the LUPP evaluation and who was experienced in this method of analysis.

Results

The following results are from LUPP nurses involved in the survey and focus group. They are nurse participants (for the purposes of research), but for ease of reading will be referred to from here on as 'nurses' in the text.

Nurse survey

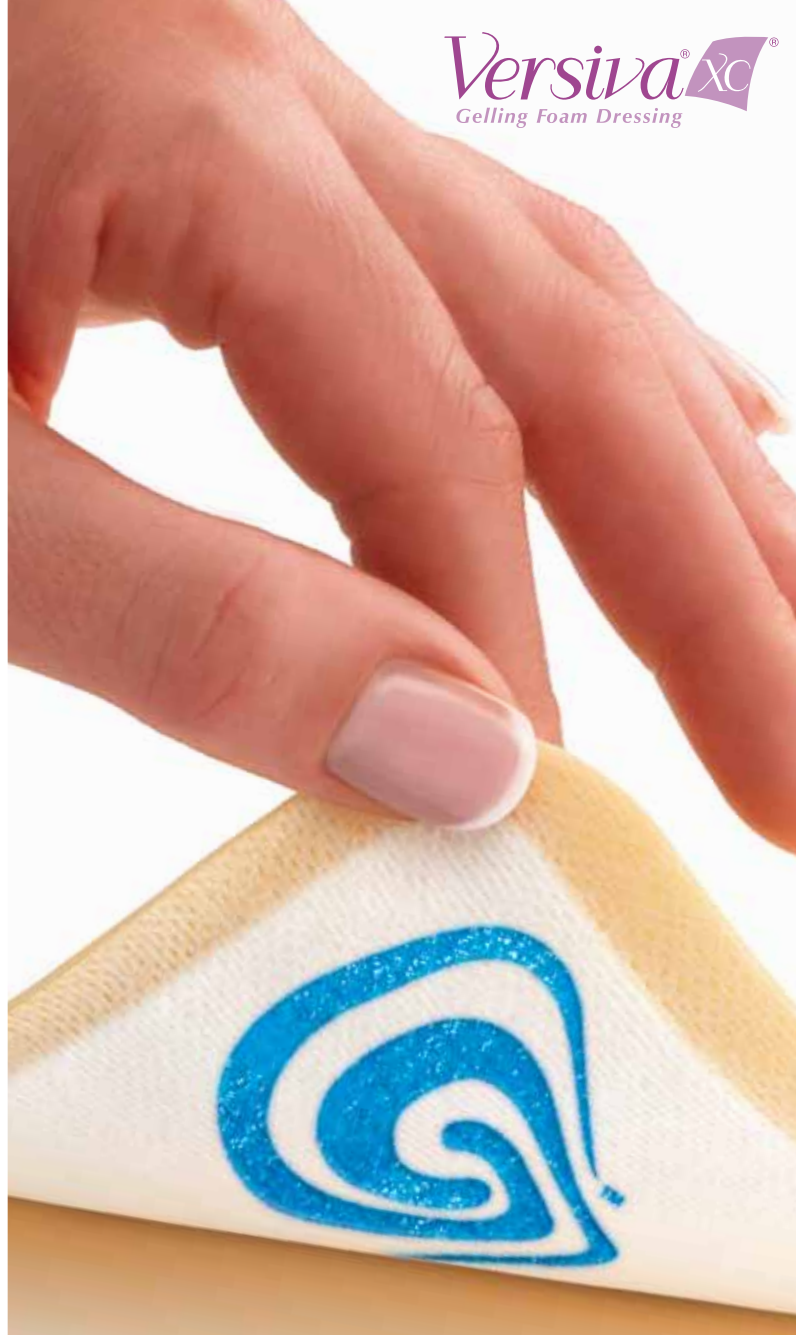
Sixty nurses were invited to complete the survey and 41 (68.3%) responded (confidence interval of 8.69 at 50%). Responses were received from nurses from all sites implementing LUPP and across a range of nurse grades, reflecting the distribution of both factors within the population. Thirty-seven respondents (90.2%) delivered one or more LUPP sessions with clients. Four participated in the LUPP training but did not deliver LUPP at any time during the period LUPP was introduced and used with clients. These nurses reported that they either did not have access to eligible clients or that LUPP was no longer relevant to their role. Most nurses reported involving a client's carer in the LUPP education at least once (70.3%).

Agreement with statements about LUPP

As shown in Table 1, favourable ratings were provided for the majority of general statements about LUPP. Ratings were high for statements about the multimedia program and supplementary materials including the ring binder, hard copies of the education and the summary sheets. The LUPP clinician guidelines were seen as a useful resource.

The area identified by nurses as being most problematic related to the volume capacity of the nurse's computer for which 15 respondents (40.5%) provided a 'poor' or 'very poor' rating. Another two areas had a noteworthy proportion of either 'poor' or 'very poor' ratings: the time it took to load the program in the client's home (16.2%) and the process required to initially install the LUPP on the tablet personal computer (8.1%). The small screen size of the computer (25.5x18.5cm) was not considered problematic. Overall, nurses rated highly the usefulness of the computer to deliver client education

The results presented in Table 2 consider home environmental factors. Lighting was reported to be problematic 'occasionally' (56.8%) and 'frequently' (10.8%). Similarly, positioning of the client to view the computer was reported as problematic



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'occasionally' (51.4%) and 'frequently' (10.8%). Noise in the home, despite the computer's reported limited volume capacity, was only somewhat problematic; 'occasionally' (40.5%) and 'frequently' (18.9%). There remained in relation to each statement approximately one third or more respondents who reported never having these concerns; lighting (32.4%), positioning (37.8%) and noise (40.5%).

Content of LUPP

All respondents (100%) reported that the six LUPP sessions covered the main topics necessary for education of clients with venous leg ulcers. Suggestions were sought as to the topics nurses would like to see added or removed as well as the ordering of sessions. Comments were made regarding areas where new or more information would be beneficial: diabetes mellitus, chronic obstructive airways disease, a greater focus on recurrence, more discussion of compression stockings including their care and the use of other stocking aids were suggested. With respect to content areas which could be removed, one respondent suggested that part of the introductory session which overviewed the purpose and format of the LUPP education could be removed. Only four respondents recommended re-ordering the LUPP sessions, all suggested that the session on skin care could be delivered earlier in the LUPP package. One suggestion was to move the nutrition and exercise sessions to the end of LUPP.

As shown in Table 3, when asked to rate the content of each LUPP session (namely the information provided and the associated activity), nurses rated the sessions highly overall with most responses situated in the 'good', 'very good' and 'excellent' categories. There was a trend for the information

provided by LUPP to rate more highly than the associated activity, with the client diaries (both activity and food) standing out as areas for future consideration. However, there was an exception, the activity for the skin care session (the trial of free skin cleanser and moisturiser) which was most highly rated of all the LUPP content areas.

Comparison of the education provided before LUPP and with LUPP

To assess the amount and quality of the education nurses provided about the areas covered by LUPP sessions two to six, noting that session one was principally an introduction to LUPP, they were asked to rate the frequency and quality of the education they provided to clients on each topic prior to LUPP and the quality of the education delivered in each LUPP session. Only one nurse indicated they never provided education about one of the session topics prior to LUPP. In all other cases around half of respondents 'frequently' provided education to clients on all LUPP topics.

Ratings of the education provided before LUPP and ratings of the LUPP education are presented in Table 4. In each instance, the LUPP education was rated as better than the education respondents provided prior to the LUPP implementation. The variables were recoded into two categories, the first including 'very poor', 'poor', 'fair' and 'good' ratings and the second including 'very good' and 'excellent' ratings. Each analysis, however, had at least one cell for which there were fewer than five cases represented. Caution must, therefore, be used when interpreting the following findings. The analysis for session three was not pursued as it had two cells with fewer than five cases represented. With the exception of session six,

Table 1. Response to general statements about LUPP.

%		Very Poor	Poor	Fair	Good	Very Good	Excellent
Process to install LUPP multimedia program	n=37	2.7	5.4	27.0	37.8	21.6	5.4
Time to load program in the home	n=37	2.7	13.5	10.8	24.3	27.0	21.6
Language used in the program	n=37	-	-	10.8	32.4	40.5	16.2
Amount of information on slides	n=37	-	2.7	2.7	37.8	45.9	10.8
Speed at which the slides changed	n=37	-	5.4	5.4	40.5	32.4	16.2
Images and diagrams used	n=37	-	2.7	2.7	43.2	40.5	10.8
Voice/tone of the presenter	n=37	2.7	-	21.6	32.4	27.0	16.2
Usefulness of ring binder folder	n=37	2.7	-	16.2	48.6	21.6	10.8
Usefulness of summary sheets	n=37	-	5.4	13.5	45.9	27.0	8.1
Usefulness of clinician guideline	n=39 ¹	-	-	7.7	46.2	33.3	12.8
Usefulness Tablet PC to deliver education	n=37	-	5.4	8.1	27.0	40.5	18.9
Volume of the Tablet PC	n=37	18.9	21.6	24.3	24.3	8.1	2.7
Screen size of the Tablet PC	n=37	-	10.8	27.0	40.5	18.9	2.7

¹ This question was asked of all 41 survey respondents (i.e. including those who did not deliver LUPP following the training). Only 39 responses are reported due to missing data.

(compression stockings and keeping your ulcer healed), for which there was no significant difference in ratings, nurses rated the quality of the education using LUPP higher than the quality of the education they had provided before LUPP. Hence, significant differences were detected for session two regarding leg ulcer treatment ($z=-4.472$, $p<0.001$), session four regarding healthy eating ($z=-4.472$, $p<0.001$), and session five regarding skin care ($z=-3.464$, $p<0.01$).

In response to a concluding question regarding overall satisfaction with LUPP, most nurses were either 'satisfied' (47.5%) or 'very satisfied' (27.5%) with LUPP overall. One fifth was 'neither satisfied nor dissatisfied' with the program (22.5%). Only one respondent reported some 'dissatisfaction' (2.5%).

Nurse focus group

Eight nurses attended the focus group discussion. Verbal consent was confirmed at the commencement of the discussion, which lasted 90 minutes. Thematic analysis of the focus group transcript illuminated the following themes which are relevant to the nurse's impressions and experience of LUPP.

1. Opportunity to engage the client.
2. Opportunity to engage the nurse.
3. A tool to improve nursing practice and client outcomes.
4. Flexibility is preferred.

Opportunity to engage the client

For those nurses involved in the focus group, LUPP was seen as a resource they could use to assist clients to engage in a new way of thinking about their leg ulcer and how it is managed. The LUPP was seen to capture the client's attention and consideration:

Mostly positive, patients love it, they loved that whole sitting down with them and looking at the screen and learning, they've really been interested ...

The role of the LUPP nurse in engaging clients was seen as imperative. Doing LUPP together was seen to motivate clients, provide support and supervision during LUPP:

I found that they were referring back to perhaps me as the LUPP person about their care and that they liked having that sort of you know that focus.

Nurses believed this presence and interaction to be essential to the client's engagement and the success of the program:

You had to actually sit there and pause it so you could answer

their questions, because you knew if you didn't by the time you got to the end they would have forgotten what it was that they wanted to ask you.

Nurses found that carers played a role in whether or not LUPP was a success. When the client had dementia, the treatment was provided to the person with the venous leg ulcer; however, the carer was the one who engaged with LUPP:

I tried to get the carers to sit if there was a carer because they were often the people that were doing a lot of things with the patient.

The nurses suggested engagement with the client was enhanced when certain barriers were removed, in particular the expense of compression bandaging. In the case of financial hardship, nurses are able to apply to an internal Client Assistance Fund for monies to purchase wound products for clients. There may have been a combined positive effect from obtaining funding for bandaging and using this to act on the recommendations from LUPP:

That actually helped a lot with them getting them on board is that I am going to apply for some funding for you... to get what we need to do this.

However, LUPP was not able to address all barriers to engagement and nurses reported the client's perception of their disease and wound severity to be one. Clients did not think that their wounds were, or would become so bad:

They compare it [the venous leg ulcers shown as case studies in LUPP, to] what they've got, and go well mine's not that bad.

At times engagement with LUPP was only for some of the time and only in some areas. This was largely due to the interests of the client in some components of the program and not others. Despite the nurses seeking involvement in all, some engagement was perceived as better than none and well worth the effort as this nurse tells:

You are still winning so you may not get all components introduced and accepted but even one or two it can make a difference ...

Opportunity to engage the nurse

LUPP led nurses to think differently about wound ownership and the client's role in self-management. Nurses also became aware of their responsibility to facilitate this:

Table 2. Response to statements about providing LUPP in the home environment (n=41).

%	Never	Occasionally	Frequently	All the time
Lighting in the home was a problem	32.4	56.8	10.8	0.0
Noise in the home was a problem	40.5	40.5	18.9	0.0
Positioning the client to see the computer was a problem	37.8	51.4	10.8	0.0

I think the LUPP thing was good in that it did kind of emphasise it ... they have to take some responsibility for looking after their ulcer as well, because I don't think, I know that I didn't probably used to stress that if I was looking after a leg ulcer, that wouldn't have been at the forefront of my mind that they are an active participant in doing things ...

Through using LUPP, the nurse began to appreciate who would and who would not engage in the program. There was a risk of disengagement by the nurse due to frustrating experiences caused by needing to persist with the education even though it was expected there would be no benefit or engagement of the client:

You could tell even from that first session whether you had someone who was interested in the program or not, and it felt like if you were doing you know, if you got there at the first session and you knew they weren't interested, they weren't going to be doing any of the participatory stuff, that you were wasting a lot of time with them.

Some comments reflected the nurse's opinions about the ability of some clients to benefit from LUPP. However, this did not always turn out as expected and was shown at times to change the nurse's view about client participation:

I had a lady with learning disabilities that I built up a good rapport with her, but I think initially if you went in you just think 'no way this would be suitable for her' ... but she did take bits and pieces from it so I don't think you could say it was like cut and dry.

Nurses began to see the value of their role as an advocate for health (irrespective of whether or not changes were made by the clients) and were then able to appreciate that some responsibility for health remains with the client:

As long as they are making an informed decision.

Table 3. Responses to the content of each LUPP session.

%		Very poor	Poor	Fair	Good	Very good	Excellent
Session 2: Leg Ulcer Treatment (n=31)	Information provided by LUPP	-	-	-	29.0	54.8	16.1
	Information provided by LUPP – specifically compression bandaging	-	-	3.2	22.6	54.8	19.4
	Usefulness of the activity – case study	-	-	12.9	54.8	25.8	6.5
Session 3: Getting Active (n=34)	Information provided by LUPP	-	-	5.9	17.6	67.6	8.8
	Usefulness of the activity – planner and diary	-	20.6	23.5	35.5	17.6	2.9
Session 4: Healthy Eating (n=32)	Information provided by LUPP	-	-	3.1	18.8	71.9	6.3
	Usefulness of the activity – diary	-	15.6	25.0	25.0	28.1	6.3
Session 5: Skin Care (n=32)	Information provided by LUPP	-	-	6.5	19.4	54.8	19.4
	Usefulness of the activity – trial of skin care products	-	3.2	-	25.8	32.3	38.7
Session 6: Compression stockings and keeping your ulcer healed (n=29)	Information provided by LUPP	-	-	-	31.0	48.3	20.7
	Usefulness of the activity – review and trial of metal frame and material stocking donor	-	3.4	13.8	41.4	34.5	6.9

A tool to improve nursing practice and client outcomes

LUPP was a welcomed addition to the nurse's tool kit of resources and strategies to teach clients and encourage them to adhere to recommendations:

I thought the information was really beneficial to them ... they'd watch a session and then we'd talk about it, and then the next session they actually would have done what was said in the session.

A strength of LUPP was that it allowed nurses to deliver consistent recommendations which were conducive to keeping their clients care plan on track. It was a resource which gave nurses confidence that the interventions they recommended were evidence-based and appropriate:

"The LUPP started and I went in and said 'this is the best way we should treat your ulcer' ...because you know [there is] confusion with clients out there when all these different nurses say this and say that."

Using LUPP led nurses to become aware of particular aspects of their practice which could be done differently. LUPP improved practice:

Especially the exercises I don't think many of us would, well I certainly don't think our centre was talking about heel raises and squats and things, certainly leg elevation ... But the heel raises and squats I thought were really good.

LUPP also gave nurses confidence that their clients would experience positive outcomes, which at times extended from previous experiences using the program:

I remember a couple of ladies, one in particular had her ulcer for I think it was about 18 months, and I said to her with this program we can heal this ulcer ... and we did heal the ulcer.

Nurses witnessed a range of client outcomes, not only the wounds healing and, therefore, appreciated the impact of LUPP on lifestyle factors and the value of small gains throughout the client's episode:

Table 4. Ratings of education provided prior to LUPP and with LUPP1.

%		Very poor	Poor	Fair	Good	Very good	Excellent
Session 2: Leg ulcer treatment (n=31)	Pre-LUPP	-	6.5	41.9	35.5	12.9	3.2
	LUPP	-	-	-	19.4	58.1	22.6
Session 3: Getting active (n=34)2	Pre-LUPP	-	3.0	36.4	48.5	12.1	-
	LUPP	-	-	2.9	20.6	58.8	17.6
Session 4: Healthy Eating (n=32)	Pre-LUPP	-	-	21.9	59.4	15.6	3.1
	LUPP	-	-	-	21.9	59.4	18.8
Session 5: Skin care (n=32)3	Pre-LUPP	-	-	3.1	59.4	31.3	6.3
	LUPP	-	-	-	25.8	48.4	25.8
Session 6: Compression stockings and keeping your ulcer healed (n=29)	Pre-LUPP	-	6.9	10.3	34.5	41.4	6.9
	LUPP	-	-	-	31.0	44.8	24.1

² As not all nurses delivered each of the LUPP sessions, sample sizes vary by session.

³ The LUPP sample includes all 34 respondents. The pre-LUPP sample includes only 33 respondents as one respondent indicated they did not previously provide education in this area.

⁴ The pre-LUPP sample includes all 32 respondents. The LUPP sample includes only 31 respondents due to missing data.

I think there were a lot of, for the ones that I was seeing a lot of positive outcomes, you know the wounds were healed ...

Nurses observed a flow-on benefit to the practice of other nurses who were not trained and did not implement LUPP; however, who picked up on some aspects of the program:

Because we have introduced it to all the LUPP clients, all the other staff are picking up on it now, we are introducing it to all their other non-LUPP clients ... skin care has dramatically improved I think ...

Nurses suggested that the LUPP had the potential to assist other nurses to provide client education, both specific to venous leg ulcer care and more general chronic disease management:

And I think all the nurses should be introduced to it. For their practice as well the patient's benefit, because I think it gives them guidelines too on what they should be doing for all of their patients not just venous leg ulcers.

Flexibility is preferred

Nurses expressed some concern for particular client groups when delivering LUPP and questioned the appropriateness of the program for some clients with dementia:

Nurses got frustrated with dementia clients, we had a couple of scenarios where, probably the second session, the person just lost it and we were told to keep going with the session ...

Clients with mental illness also presented a challenge. The benefit to the client was questioned when the influence of medications was believed to have a sedative effect:

Yeah the same thing, the odd client who would sit there and fall asleep, especially the ones with some psychiatric problems, and I found that I was continually waking them.

Unplanned and unexpected factors affected the nurse's ability and wish to deliver LUPP according to the weekly schedule. Flexibility to respond to the clients needs was required:

Some people could be slightly unwell one day or feeling the effects of heat and so not concentrate so well but then next time they might be more with it.

It was suggested by the nurses that, in the future, the opportunity to adapt the order of the sessions to meet the individual learning needs of the client, or the interventions prioritised by the nurse would be clinically appropriate and in the best interests of the client:

Also maybe even the sessions that you think will be beneficial for the client and just do those sessions so if you think their skin care is really lousy then show them the skin care one.

This sentiment was extended to the activities undertaken in the sessions also:

And I think with the exercise one maybe we need to put in an alternative if people can't do heel raises or a leg squat.

Discussion

LUPP was a tool to standardise the education provided to clients with venous leg ulcers and it ensured that the information given by nurses was structured and based on best practice principles. Nurses reported that LUPP addressed the main areas required when providing care to this client group and were able to use LUPP to successfully engage clients in their care. The ability to adapt the order of sessions to meet the individual needs of the clients would be a welcomed refinement. Nurse involvement in LUPP was seen as integral, with their presence and partnership with the client seen to be a motivator for clients.

Nurses found that some client characteristics, such as cognitive impairment, presented challenges to them when trying to engage the client. A future consideration is how to best address the needs of clients with leg ulcers who can not or do not engage in this type of client education but who do have the potential for improved health. It may be that directing strategies to others involved, such as carers, or adopting alternative methods to achieve client goals may be beneficial for some client groups.

Nurses observed a range of client outcomes which prompted them to consider their client's health more holistically. LUPP engaged nurses in reflecting on their own practice and reflecting on the practice of other nurses, including those who, though they were not actively piloting the program, were still aware of its presence and function. The potential for components of the program to be useful for education in areas other than venous leg ulcer management was evident to these nurses.

Nurses expressed some concerns about the limitations of the technology used to deliver LUPP; however, with respect to the LUPP multimedia package, satisfaction was high. Environmental issues specific to the home were found by some to be problematic. Nurses addressed these issues head-on, for example accessing speakers to resolve concerns about the volume of the computer. It is worth exploring further the strategies employed by nurses who overcame elements of the home environment which compromised the education so these can be incorporated in future revisions of LUPP. Overall, nurses were highly satisfied with the LUPP program.

Education practices before LUPP likely reflected the nurse's education and training, experience and expertise and organisational policy and procedures; however, this has not been explored in this study. The finding that nurses rated the education they delivered better with LUPP suggests that the program has raised the quality of the education provided by these nurses. LUPP standardised the education given to clients and allowed nurses to confidently make recommendations for appropriate treatment.

Using LUPP, a multimedia client education package for people with venous leg ulcers was regarded by the nurses as acceptable and effective. This is a considerable accomplishment given the time pressures faced by nurses, who, despite the demands of more time spent in education and new processes to be learnt, implemented LUPP with their clients and evaluated it favourably.

Strengths and limitations

The response rate achieved in the survey was representative of nurses who provided LUPP during this study. The small sample size, however, prohibited reliable segmentation analysis by nurse grade and frequency of LUPP use. The nurse focus group was attended by those most familiar with LUPP and the findings add to the understanding of the experience of LUPP from the nurse's perspective. These two methods of enquiry complement each other well by harnessing information regarding the experience of the many involved in the LUPP implementation and exploring the rich experiences of those most knowledgeable about the program.

Conclusion

LUPP was found by nurses to be a highly acceptable and valuable tool for the education of clients with venous leg ulcers. LUPP demonstrated success in improving client education practices and nurses using LUPP witnessed and were involved in positive health outcomes among the clients involved. These results build on the previously reported findings of the positive impact of LUPP on client outcomes⁶. An area for further research is to investigate whether LUPP does impact favourably on healing outcomes. Exploration of the impact of LUPP on prevention of recurrence is also required. Evaluating these factors will be the focus of the next stage in assessing the value of the LUPP package once it has been refined as a result of this evaluation.

Acknowledgements

We are grateful for the financial support of the Sydney Myer Foundation and the Angior Family Foundation.

We are grateful to:

The Victorian and Australian Governments, who jointly fund the Home and Community Care (HACC) services provided by the organisation.

The Department of Veterans' Affairs.

The nurses who gave of their valuable time and experience and participated in this study.

References

1. Briggs M & Jose Close S. The prevalence of leg ulceration: a review of the literature. *EWMA Journal* 2003; **3**(2):14-20.
2. Chase SK, Melloni M & Savage A. A forever healing: the lived experience of venous disease. *J Vasc Nurs* 1997; **15**(2):73-78
3. Kapp S & Sayers V. Preventing venous leg ulcer recurrence. A review. *Wound Practice and Research* 2008; **16**(2):38-47.
4. Edwards H, Courtney M, Finlayson K, Lewis C, Lindsay E & Dumble L. Improving healing rates for chronic venous leg ulcers: Pilot study results from a randomised controlled trial of a community nursing intervention. *Int J Nurs Pract* 2005; **11**(4):169-176
5. Kapp S & Nunn R. (2005). A profile of clients receiving wound care. Royal District Nursing Service: Helen Macpherson Smith Institute of Community Health.
6. Kapp S, Miller C, Sayers V & Donohue L. The Leg Ulcer Prevention Program: Effectiveness of a multimedia client education package for people with venous leg ulcers. *Wound Practice and Research* 2010; **18**(2): 80-90.
7. Van Manen M. Researching lived experience: Human science for an action sensitive pedagogy. New York: State University of New York Press, 1990.

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