Client records: insights into clients and the services they are offered by a regional leg ulcer clinic in Queensland, Australia

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Abstract

Clinicians collect much data on their clients that is not for the purposes of undertaking research. However, periodic investigation of such data provides an opportunity to not only review the completeness of the documentation, but also to consider what is being undertaken within the service and what could be strengthened.

This paper outlines the examination by two independent researchers of the client records of a small, private leg ulcer clinic in a regional Queensland city. The primary purpose of this examination was to establish an overall view of the clients attending the clinic and to identify aspects of the service that would benefit from future research.

The results presented here provide a client profile that mostly fits with that outlined in the published literature. The process of examining these results highlighted the conscientiousness of clinicians in collecting and recording physical data relating to the clients and their wounds. It also raised the issue of how well psychological and social aspects of the clients were being addressed in formulating treatment regimens.

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Introduction

Most healthcare professionals would have heard the adage 'if it's not documented, it wasn't done', though few could attest to having written down *every* activity they undertook on a daily basis. However, what is recorded (and what is not) within client records can provide valuable insights into the work within a health service, as well as provide evidence of the progress of any particular client.

A review of Swedish primary healthcare centres found that nurses were generally diligent in recording assessment and treatment information relating to physical aspects of leg ulcers, though some aspects were not as well documented as others [1]. Of particular concern was the generally poorly documented psychosocial assessment of leg ulcer clients, suggesting a holistic approach was not taken when assessing and treating clients. This finding may reflect findings in the literature, indicating that a strong emphasis is placed on the physical assessment and treatment of leg ulcers and considerably less attention is given to the lifestyle effects of leg ulceration [2].

In recent years, there has been an increased recognition of the importance of psychological and social aspects of the lives of clients and the relationship these factors have on the physical healing of a leg ulcer, particularly those of venous aetiology [3-6]. Increasingly, researchers are highlighting the

ability of leg ulcers to impact significantly upon the quality of life of individuals, as well as drawing attention to the apparent inability of many healthcare professionals to understand the pervasiveness of leg ulcers and their resulting implications for everyday living [4, 7-12].

Methods

Following ethical approval, the client records of a private, regional Queensland leg ulcer clinic were accessed and entered into a database [SPSS]. No identifying details of the clients were included in the information gathered. The collected data included:

- Initial assessment information (client age, gender, comorbidities, wound dimensions and description, wound type, duration prior to presentation, pain, ankle brachial pressure index – ABPI).
- Treatment (including the type of compression applied).
- Length of time the wound had taken to heal, if it had done so at the time of investigation.

These data were analysed using descriptive and correlation statistics; the small numbers of records involved prohibited more extensive statistical analysis. The data were compared to the literature to determine the typicality of this cohort of clients.

Results

The records of 51 clients with a total of 58 ulcers were reviewed. There was a predominance of female clients (52.5%); most (79.3%) were aged >65 years, while 39.7% were aged >80 years. The majority of presenting leg ulcers were of venous aetiology (74%) with ABPI >0.9. Eight clients had ABPI readings between 0.51-0.89, and three had readings of <0.5. The mean duration of ulcer presence prior to presentation was 23.84 months.

Upon admission to the clinic, the mean ulcer size was 12cm^2, although 41 (71%) were <10cm^2. Most of the wounds had either spontaneously arisen (37.9%) or resulted from a traumatic incident (51.7%). The majority of ulcers (70.7%) caused the clients little to low levels of pain, while 24.1% caused moderate levels of pain. Most of the clients had one or more comorbidities, although in 15 clients no comorbidities were indicated. For the purposes of this study, smoking and obesity were included as comorbidities.

As the majority of the wounds were venous leg ulcers, the mainstay of treatment and prevention was compression therapy; compression was applied to 77.6% of the ulcers, either in the form of bandaging (n=16) or stocking (n=30). Of the 29 healed ulcers, 24 (82.8%) had healed within 6 months of admission to the clinic. However, healing time did not correlate strongly with size of ulcer on presentation to the service (r=0.135) or with other factors such as history of deep vein thrombosis (DVT) (r=0.109) or vascular surgery (r=-0.365).

Discussion

Initial assessment information

This study was not a formal audit of the client records of the leg ulcer clinic to evaluate the practice of the clinicians within the clinic; indeed, it has been suggested that this type of audit or evaluation does little to change practice [13].

The main purpose for the study was to identify the profile of the clients utilising the service and to consider this in light of the literature. As such, with the exception of gender and ulcer size on admission, the characteristics of this cohort of leg ulcer clients fit with those seen in other studies. A number of studies have highlighted that leg ulcers primarily affect older, female clients. A UK study on the sociodemographics associated with chronic leg ulceration found a mean age of 75 [6], while a Swedish study noted only 17% of client records examined related to leg ulcer clients aged <65 years [1]. Both of these studies found a gender divide of 64% and 67% female respectively, consistent with other studies [3, 4, 13-16]. These percentages are significantly higher than in the current study where women accounted for 52.5% of the cohort.

As expected, in the current study, the majority of the leg ulcer clients presenting at the clinic had a leg ulcer of venous aetiology. In the UK study, 43% of the clients had uncomplicated venous ulceration [6]. This is slightly higher than the 33% found in the current study, although the small numbers examined here could account for the variation.

Common comorbidities were consistent with those outlined in the literature. In the UK study, 4-17% of clients presenting with leg ulcers had also been diagnosed with diabetes and 14-32% had a history of DVT [6]. The cohort examined here included clients with diabetes (10.3%) and similar rates of previous DVT (17.2%). These two comorbidities were the most common found amongst this cohort, along with smoking (8%) or a history of smoking (27%). Smoking or a history of smoking was found to be evenly distributed across clients with leg ulcers of venous or arterial aetiology.

Upon presentation at the leg ulcer clinic, the average duration of leg ulcers for clients in this cohort was almost 2 years. This finding appears to be consistent with some of the studies identified in the literature. For example, clients presenting to leg ulcer clinics in the UK reported having ulcers for 12-24 months [13]. However, other studies report somewhat shorter periods of time before presenting to a leg ulcer clinic, ranging from 8-10 months [6, 14, 17]. The longer times noted in the cohort examined here may have been influenced by the fact that all records of the clinic since its inception were examined. Since it is the first and only leg ulcer clinic in this region, it is likely there were a number of clients whose ulcers had already

been in existence for some time prior to receiving specialist attention. Indeed, three of the clients included in this cohort reported leg ulcers already in existence for extensive periods (20, 28 and 33 years) prior to their attendance at the clinic.

In the present study, the size of ulcers upon presentation was found to be consistent with those of other studies, which report a majority of ulcers being <10cm^2 (71% of current study) [6, 13]. However, the average size of ulcers in this study (12cm^2) was slightly higher than two 2005 studies that report average sizes of 8.97cm^2 and 9.90cm^2 [5, 17].

Two studies were conducted in the UK where leg ulcer clinics have been available since the mid-1980s and where a great deal of work has been undertaken to encourage appropriate assessment and treatment of leg ulcers [6, 13]. In regional Queensland, anecdotal evidence suggests simple assessment measures such as ABPI are still not being undertaken routinely. However, in the cohort studied here, ABPI assessments were performed on all clients, with the exception of a small number for whom it was not possible – it is interesting to note that such variations in practice are not confined to regional Queensland. The importance of implementing a systematic leg ulcer strategy in order to improve the adherence of clinicians to evidence based guidelines was outlined in a UK study pre- and post-implementation of a new strategy. In that study, 94% of clients received ABPI assessments following implementation, compared to only one patient out of a total cohort of 955 pre-implementation [13].

Treatment and time taken to heal

Compression has long been the mainstay of venous leg ulcer treatment once appropriate assessment has been conducted [18, 19]. A number of authors have recommended the use of multi-layer bandaging for ulcer treatment, progressing to compression hosiery to assist in preventing recurrence [20]. Of the 28 patients in this study whose ulcers were known to have healed, 18 were prescribed compression hosiery as a prophylactic measure to prevent recurrence.

The appropriateness of this is reflected in the healing time seen in this cohort. In a study examining wound healing trajectories, 60% of venous stasis ulcers are reported to have healed completely within 20 weeks using compression therapy [21]. These authors predicted 31 weeks would be required for healing of all (uncomplicated) venous leg ulcers. In the current study, 82.8% of the healed ulcers did so within 6 months, well within the 31 week prediction [21]. However, it is likely the comorbidities associated with a diverse cohort attending a leg ulcer clinic, as opposed to a controlled study group, means such trajectories need to be viewed as helpful but not absolute.

Thus far the documentation that was available to the current study suggests that, with a few minor exceptions, the cohort of clients attending this clinic is consistent with those examined in the literature; that the assessment and treatment regimens implemented at this clinic are consistent with those recommended in the literature; and that the outcomes in terms of healing are also to be expected.

Further research

A secondary aim of the current study was to identify aspects of assessment and treatment that would benefit from further research. One such aspect became evident when reflecting on what was *not* included in the documentation.

Over the past decade there has been a growing level of recognition within the literature regarding the importance of taking into account the client experience of living with a leg ulcer when formulating treatment regimens. It has been postulated that the social, psychological and economic status of a client can impact on the healing of a leg ulcer [2, 3, 6, 14, 15]. One of the more convincing studies demonstrating a positive relationship between healing and social support was conducted by Edwards *et al.* [5], who found that clients with venous leg ulcers who attended a community leg ulcer club in Queensland had a significant improvement in healing, as measured by ulcer area size and pressure ulcer scale for healing scores.

While not the only study to demonstrate such improvements, the authors highlighted the important role that leg ulcer clubs can play in encouraging adherence to uncomfortable regimens such as wearing compression bandages in hot, humid climates [5]. They suggested this success may be influenced by the social support and interaction offered by the clubs, providing clients with opportunities to share information and strategies of living with a leg ulcer, as well as improving their understanding of the condition and its treatment.

The growing strength of evidence supporting the importance of incorporating a broader, more holistic perspective into treatment regimens suggests clinicians need to consider how such a perspective could be taken into account in more traditional or restrictive (in terms of geographical size and location) settings such as leg ulcer clinics. There are a number of options that may be considered.

Firstly, medical practitioners associated with the clinics could spend more time with each client discussing the impact of the ulcer on the client lifestyle. However, the chronic shortages of general and specialist doctors in regional Australia suggest this option would be difficult to implement.

Secondly, the nursing presence within the clinic could be increased. One study in Hong Kong reported 68.3% of clients preferred to see both a doctor and a nurse, with nurse practitioners being more inclined to adopt a holistic framework by providing longer consultations, more information and more sustained communication with clients [22]. The clinic examined in the current study does in fact utilise a highly experienced nurse in wound management who seems to have an extensive understanding of the clients attending the clinic. However, this understanding has been gained informally and is not strongly evident within the client charts. To ensure continuity in client management, development of a more comprehensive assessment tool that takes the psychosocial status of clients into account could be considered.

Thirdly, consideration could be given to establishing a leg club. Leg clubs began to gain popularity after Lindsay demonstrated this social model approach to leg ulcer management significantly improved adherence to treatment regimens and healing outcomes [23]. Leg clubs provide social and psychological support through peer interaction in a way that cannot be met through a clinic visit or by home visits by community nurses. Establishing a leg club in a regional city would require a number of agencies to cooperate, as it is unlikely such a venture could be taken on by one facility due to size and funding limitations. A more short-term measure individual clinics could consider is to encourage client interaction within waiting rooms through the provision of tea and coffee facilities.

Conclusion

Over the past 3 decades leg ulcer management has made significant progress in achieving positive outcomes, especially with regard to venous leg ulcers. There is extensive evidence to support practice. There are skilled practitioners in wound assessment and treatment. There are specialised clinics for clients with leg ulcers to access these resources. And yet, leg ulcers continue to impose an onerous burden on those afflicted.

This paper has illustrated the practices within a regional wound clinic to be consistent with those outlined in the literature. The necessity for such a clinic is demonstrated in the healing of most wounds within a reasonable timeframe, even in long standing wounds. The challenge now faced by wound management practitioners in such clinics is how to address those non-physical factors that affect wound healing, skin regeneration and minimising recurrence. We have offered some suggestions here, but ultimately how this is progressed needs to be negotiated between the practitioner, the clients and the community.

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