Reviewer’s report

Title: The association between foot-care self efficacy beliefs and actual foot-care behaviour in people with peripheral neuropathy- a cross sectional study

Version: 1 Date: 2 June 2008

Reviewer: Wanda Borges

Reviewer’s report:

1. The article is well written and for the most part, easy to understand. The background for the study is well explained – the increasing epidemic of type 2 diabetes with resultant potential for foot pathology and amputations. The lack of consistent use of foot self-care behaviors and the need for interventions that emphasize not just knowledge but also psychological constructs that affect behavior is explained and provides justification for the study.

The use of self-efficacy as a theoretical construct is appropriate and the rationale is well delineated.

2. The authors have highlighted an important gap in the literature on foot care – the relationship between foot self-care and foot care self-efficacy. The study design is well formulated – focusing on those patients with peripheral neuropathy. The measurement tools used are well explained and the limitations of validity testing are given.

3. Major compulsory revision:

The use of multiple t-tests for confidence scale and behavior subscales is somewhat problematic and it might be more appropriate to conduct ANOVA as the independent variables are most likely associated with each other. In addition, I understood from page 7 that the foot behavior scale scores were converted to dichotomous variables – which would make the use of a parametric tests unacceptable.

4. Major compulsory revision:

A major weakness of the article is that there was no mention of power in the study – the potential for being underpowered would affect the findings with a type 2 error – on page 9 authors state:

“we found only a weak relationship between FCCS and preventative behaviour scores. While this indicates that the participants who have stronger foot-care self-efficacy beliefs also undertook more preventative behaviours the relationship was unconvincing in its “clinical” significance in practice.”

The lack of a strong relationship could be explained by the lack of power in the study – a type 2 error. Since the FCCS measured self-efficacy in preventive behaviors, the significant correlation between the preventive behaviors and FCCS scores makes since.
5. Discretionary revision:
A weakness of the design is the lack of a measurement of foot self-care knowledge. The authors point out on page 11:
“Stuart and Wiles seriously doubt the worth of using quantitative tools to assess foot-care “knowledge” in people with diabetes as they found that their participant’s actual understanding of foot-care practices derived from in-depth qualitative techniques fell well short of their apparent knowledge as investigated using quantitative techniques [39].”

While knowledge is necessary it is not sufficient to change behavior but knowledge is a precursor to behavior change.
The authors statement on page 10 listed below could be explained in part due to a lack of knowledge of consequences of inconsistent foot prevention techniques and thus the behavior is not taken until the consequence occurs.

“It would be expected that the participants who had suffered a serious problem of a diabetes-related foot problem would undergo more appropriate foot-care behaviours in the future. For these people, adverse outcomes may act as a prompt for preventive behaviour. Unfortunately, it appears that this “prompt” is required first before preventative behaviours are taken place, rather than implementing the preventative behaviours before they get a foot problem.”

6. Minor essential revision:
Finally, it is important to understand that self-efficacy is one construct in Bandura’s social cognitive theory. Self-efficacy is influenced by outcome expectancy and this is an understudied but important link. For those patients who had foot pathology, their outcome expectancy for foot self-care has changed – they now believe that the foot self-care will prevent further problems so their self-efficacy increases and they now undertake more preventive behaviors and fewer damaging behaviors. Thus the statement by the authors on page 10 listed below should be modified to reflect this relationship.

“It would be expected that those with a history of pathology would report lower self-efficacy.”

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.