

**Effect of foot reflexology on pain reduction  
in older Thai people**

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## Abstract

This quasi-experimental, pre- and post-test design study addresses concerns about the increasing older age population worldwide and in Thailand in particular, and the increased pain, co-morbidities and risk of adverse effects from medication incompatibility that accompany ageing. Whilst anecdotal evidence exists about the role of foot reflexology as a form of non-pharmacotherapeutic pain management, there is little scientific evidence of its benefits. This study has sought to fill this gap in the research by investigating the effects of foot reflexology on reducing pain in the older Thai population and assessing the effect of foot reflexology on the quality of life scores of the older Thai population who experience pain.

The study was conducted over a six-week period with 160 older Thai people with pain who attended the Primary Health Care Centre of Lamsompung district, Saraburi, a rural area of Thailand. Criteria for participation included having *Pain right now* when the researcher conducted the first interviews for participants. Exclusion criteria included vascular disease, foot infections/ulcers and recent surgery. Participants were randomly allocated to one of three groups: a foot reflexology intervention group (n=80); an alternative intervention group with home-based talking about pain (n=40); and one group with no intervention (n=40). Measures of pain and quality of life were taken from all participants before the four-week intervention period (on day 1), at the end of the intervention period (week 4) and again after a two-week follow-up period (week 6). Data were collected using demographic data questions, The Brief Pain Inventory [BPI], Thai version, questionnaire, and the SF-36, Thai version quality of life questionnaire. In week seven, after all measurements had been taken, all participants in the alternative intervention and no intervention groups were offered

the same foot reflexology sessions as given to participants in the intervention group.

Demographic data were analysed in terms of frequency and percentage. Differences in baseline results between the three groups were analysed in terms of mean and standard error of mean. Differences in outcome measures between the three groups post-intervention were explored using Analysis of Variance (ANOVA). Analysis of Co-variance (ANCOVA) was used to assess differences post-intervention, adjusting for baseline levels. Data analysis aimed to prove primary and secondary hypotheses:

1. Primary hypothesis: there is either no (null hypothesis) or some difference (alternative hypothesis) in mean pain scores between the intervention group (foot reflexology) and the alternative intervention group (home-based interview talking about pain), or between the intervention group and no intervention group at the end of the intervention (week 4) and at the end of the follow-up period (week 6).
2. Secondary hypothesis: there is either no (null hypothesis) or some difference (alternative hypothesis) in mean quality of life scores between the intervention group (foot reflexology) and the alternative intervention group (home-based interview talking about pain), or between the intervention group and no intervention group at the end of the intervention (week 4) and at the end of the follow-up period (week 6).

Results indicate that for the older Thai people in this study:

- males have a higher quality of life than females;
- foot reflexology plays a role in temporary pain relief; and
- foot reflexology improves quality of life.



## Declaration

I certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signed:



A handwritten signature in black ink, appearing to be 'Jeranut Somchock', is written over a horizontal dotted line.

Jeranut Somchock

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