



## BACKGROUND

In a chronic smoker will Reflexology have any impact on reducing the urge to smoke or reduce neck and shoulder pain? Cigarette smoking leads to \$280 billion in health care costs and lost productivity and over 393,000 deaths worldwide on an annual basis. Smoking is a way for people to cope with stress. Reflexology can also be used for stress reduction.

## OBJECTIVE

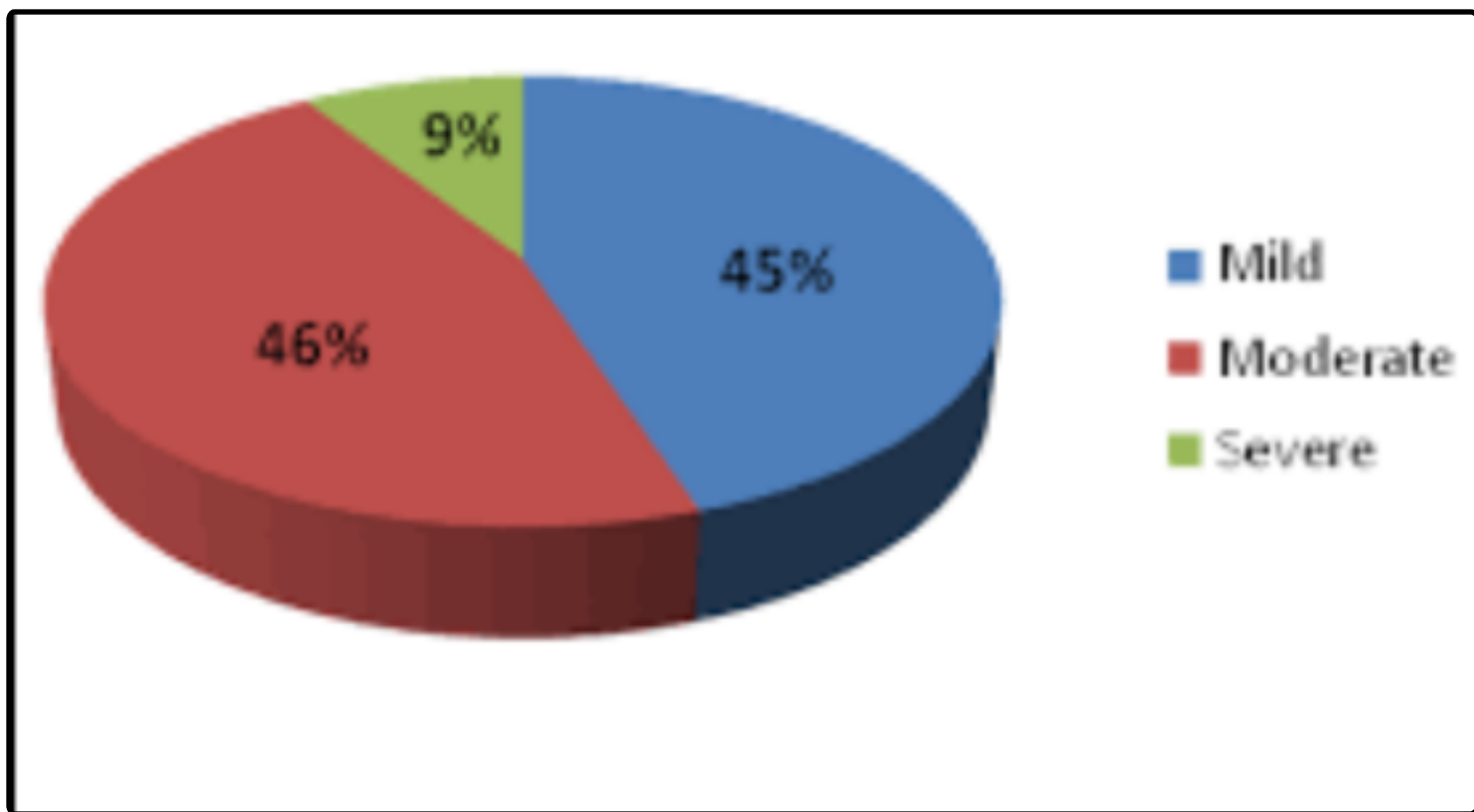
To identify the short-term impact of reflexology on number of cigarettes smoked by a chronic smoker.

## METHOD

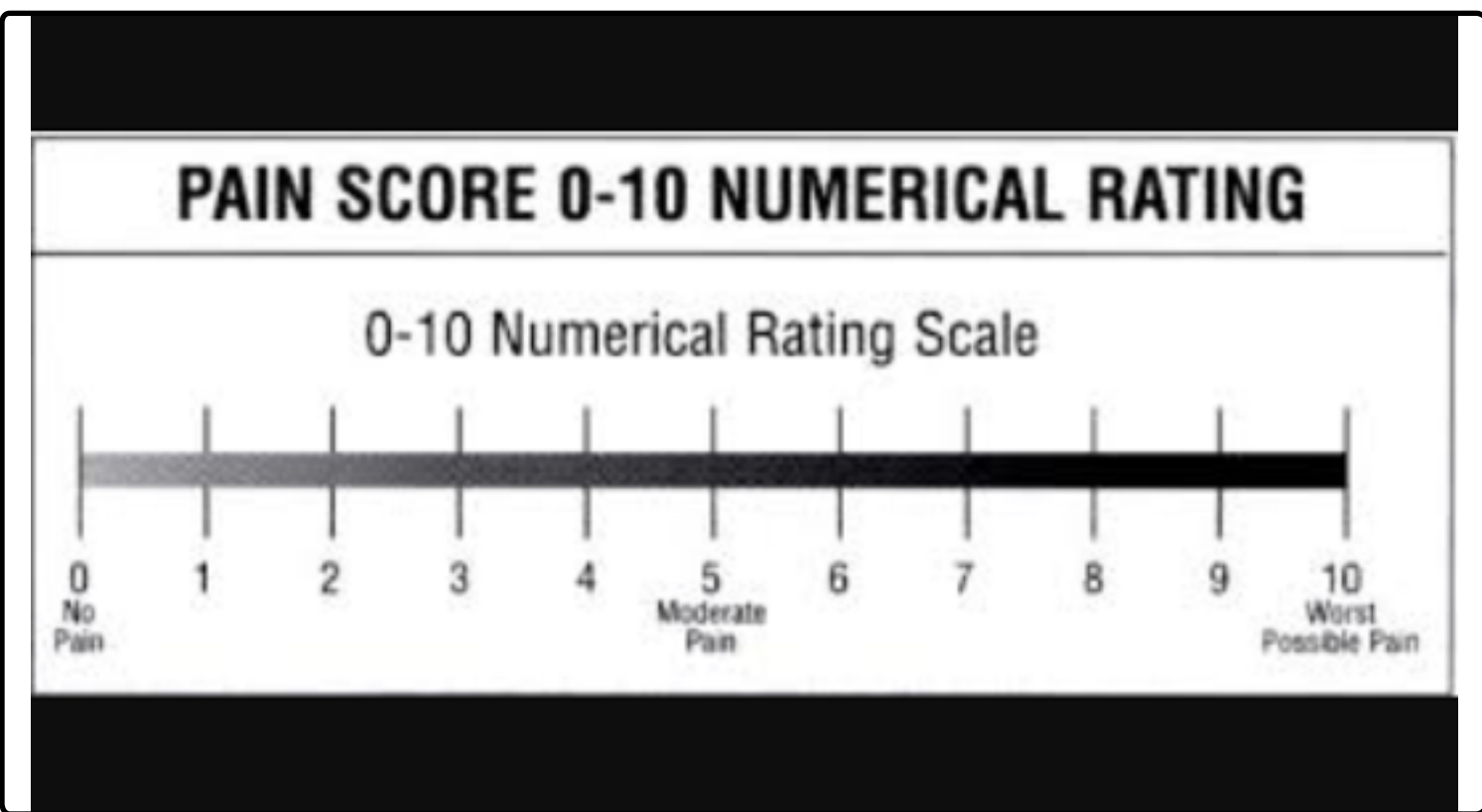
A 56 year old female computer analyst was offered 15-minute reflexology treatments twice a day during her regular breaks for 20 consecutive workdays. She presented as a high dependency smoker (20+ cigarettes daily) with neck and shoulder pain.

# IMPACT OF REFLEXOLOGY ON NUMBER OF CIGARETTES SMOKED BY A 56-YEAR-OLD FEMALE

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Numeric Pain Rating  
Scores chart: After Treatment



Pain Score 0-10 Numerical Rating  
Scale

	Points
How soon after you wake up do you smoke your first cigarette?	
Within 5 minutes	3
6–30 minutes	2
31–60 minutes	1
After 60 minutes	0
Do you find it difficult to refrain from smoking in place where it is forbidden, e.g., in church, at the library, in cinema, etc.?	
Yes	1
No	0
Which cigarette would you hate most to give up?	
The first one in the morning	1
All others	0

fagerstorm 1

How many cigarettes per day do you smoke?	
≤10	0
11–20	1
21–30	2
≥31	3
Do you smoke more frequently during the first hours after waking than you do during the rest of the day?	
Yes	1
No	0
Do you smoke if you are so ill that you are in bed most of the day?	
Yes	1
No	0

fagerstorm 2



- Cigarette smoking causes preventable disease and death
- Cigarette smoking lead to \$280 billion in healthcare costs, lost productivity and over 393,000 deaths worldwide on an annual basis
- Cigarette smoke contains 69 cancer causing chemicals
- Tobacco use cost more than \$280 billion in healthcare cost and lost productivity
- Smoking harms nearly every organ in the body
- Nicotine is a psychoactive
- It takes eight seconds for nicotine to reach the brain
- Reflexology can increase blood flow
- Reflexology creates a relaxation effect
- Positive outcomes from pain reduction due to reflexology
- Reflexology can reduces anxiety and depression in postmenopausal women



## RESULTS

The client chose reflexology treatment in lieu of smoking on all 20 days. She decreased her cigarette use from 20+ to 8-10 cigarettes per day and stated that her urge to smoke decreased. Her neck and shoulder Numeric Pain Rating Scale (NPRS) scores reduced from 9/10 to 2/10 over the 20 days and her Fagerstrom Test for Cigarette Dependency (FTCD) scores reduced from 5/9 to 3/9. She also noted that she was sleeping longer at night, felt more rested and energized, had an improved appetite, and was more relaxed overall. Treatment was discontinued after the 20 workdays, and the client resumed smoking 20+ cigarettes per day.



## CONCLUSION

Reflexology may be beneficial as an intervention for smoking cessation. Reflexology may be beneficial as an intervention for smoking cessation. There are several possible explanations for this treatment benefit including a reduction in anxiety, depression, or physical pain. Even though reflexology provided positive outcomes in this case report, more research is needed to determine the most effective treatment approach, dosage, and duration of treatment for chronic smokers. Studies are also needed regarding physiological mechanisms of action of reflexology for smoking cessation.