



Transcutaneous electrical nerve stimulation (TENS) treatment outcome in long-term users.

Fishbain DA, Chabal C, Abbott A, Heine LW, Cutler R.
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University of Miami School of Medicine, Department of Psychiatry, Florida, USA.

OBJECTIVE:

Previous reviewers of the literature on transcutaneous electrical nerve stimulation (TENS) outcome have concluded the following: (a) there are few long-term TENS follow-up studies, and (b) fewer studies have addressed the effect of long-term TENS use on outcome variables other than pain (e.g., function).

DESIGN/SETTING/PARTICIPANTS/OUTCOME MEASURES:

From a population of 2,003 chronic pain patients (CPPs) who bought a TENS device for pain management, 506 patients were randomly selected and interviewed by telephone long enough after purchase to allow at least 6 months of TENS use. The interview process used a structured „skip“ questionnaire designed to assess the CPPs' perceptions regarding the effectiveness of TENS for a variety of outcome variables. Of the 506 CPPs interviewed, 376 (74.3%) had used their TENS device for 6 months or longer and were defined as long-term users. The responses of this group of CPPs to the telephone questionnaire were then subjected to statistical analysis.

RESULTS:

Paired t-tests, correlated z-tests, SS Wilks, and chi-square tests demonstrated statistically significant change or improvement ($p < 0.05$) that paralleled the introduction of TENS use in the following outcome variables: less pain interference with work, home, and social activities; increased activity level and pain management; decreased use of other therapies (e.g., physical therapy, occupational therapy, chiropractic); decreased use of narcotics, tranquilizers, muscle relaxants, nonsteroidal anti-inflammatory drugs and steroids.

CONCLUSIONS:

The results suggest that TENS is associated with improvement on multiple outcome variables in addition to pain relief for CPPs who are long-term users. Also, for some CPPs, long-term TENS use continues to be effective.

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