Effect of Physical Therapy on Wound Healing and Quality of Life
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Purpose
To review and analyze the current literature concerning how physical therapy affects quality of life (QOL) and wound healing in patients with chronic lesions.

Materials and Methods

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<th>Study</th>
<th>Patient Population</th>
<th>Materials</th>
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<th>Results</th>
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<td>Yim et al.</td>
<td>JAMA Dermatology 2015</td>
<td>Systematic Review; 10 out of 855 articles accepted with appropriate inclusion criteria; 10 articles consisted of RCT's and single-arm cohort studies with small sample size.</td>
<td>7 studies used PT or exercise for patients with venous leg ulcers (VLUs) and 3 studies for patients with healed VLUs.</td>
<td>Review current literature with regard to effect of PT and QOL in patients with VLUs. End points (goals) of wound healing included amount of healing, wound size reduction, healing time, and improved QOL.</td>
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<td>Persson et al.</td>
<td>Journal of Clinical Nursing 2004</td>
<td>Systematic review and meta-analysis.</td>
<td>Literature review. Results of qualitative studies were organized into 3 domains: impact of the leg ulcer on physical aspects, psychological aspects, and social aspects, and impact of the treatment.</td>
<td>Results of quantitative studies were organized into 3 domains: impact of the leg ulcer on physical aspects, psychological aspects, and social aspects, and quality of life (QOL).</td>
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<td>Lindholm et al.</td>
<td>Acta dermatovenerologica 1993</td>
<td>125 patients (51 male &amp; 74 female). Inclusion criteria: patients with leg ulcers of venous, arterial, or mixed etiology. No other types of wounds were included.</td>
<td>Nottingham Health Profile (NHP). Questionnaire used in 10 studies. 2 part questionnaire:</td>
<td>NHP forms with pre-stamped and addressed envelopes were delivered by care-giving nurses to all patients willing and able to fill out the form. Patient responses were compared to those of a normal population and divided among various occupations: white-collar, shop assistants, manual workers, and housewives.</td>
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<td>Chang et al.</td>
<td>Journal of Wound Care 2004</td>
<td>65 patients with venous leg ulcers. All patients were ≥18 years old with an average age of 72 years. Inclusion criteria: wounds greater than 2 cm and less than 12 cm in its widest. 3 groups: Healed wounds, unhealed wounds, no wounds.</td>
<td>SF-36 quality of life (QOL) questionnaire. The questionnaire is self-administered. It has 36 questions across 8 health domains: Physical functioning, social functioning, role physical, role emotional, bodily pain, mental health, vitality, and general health.</td>
<td>All patients were assessed using the SF-36 quality-of-life questionnaire when entering the trial. Patients were reassessed using the same questionnaire upon conclusion of the trial.</td>
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Analysis

1. Yim et al. reported no significant improvement in QOL after physical therapy; however, the 2 studies which evaluated the direct linkage did not report QOL on an individual basis. More detailed statistical analysis is needed to determine subjective differences between each individual.

2. Persson et al. determined that pain was the primary factor limiting a patient’s return to function and was related to immobility, sleep disturbance, and worries/frustrations; therefore, greater emphasis placed on pain modulation could theoretically lead to greater QOL improvements.

3. Lindholm et al. determined that patients with greater wound chronicity reported fewer problems than those with shorter duration wounds, which is indicative of adaptive mechanisms. Moreover, men reported markedly increased perceptions of pain and social isolation when compared to their female counterparts.

4. Charles H. determined that over 12 weeks, all patients demonstrated an improved quality of life. The patients’ whose wounds healed revealed a more statistically significant improvement self-reported by a questionnaire. Overall, time, all patients experienced an increased quality of life; however, healed wounds demonstrated a greater increase of QOL.

Conclusion

Patients with chronic wounds experience a decreased quality of life, which is exacerbated when wound closure is incomplete at the time of evaluation. Current research is inconclusive with respect to how physical therapy treatment directly influences quality of life scores. Further research is needed to determine the QOL of patients with wounds who are participating in physical therapy. The efficacy of wound care in physical therapy practice, as well as wound effects on QOL, is prevalent in the research; however, the integration of all three parameters must be investigated. This information is necessary to improve the physician and patient adherence to optimal wound management in light of several guidelines being outdated and lacking efficacious data.

References