The Efficacy of Short-Wave Diathermy (SWD) on Tissue Healing
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The literature analyzed provides support to the beneficial effects of SWD in the area of tissue healing, specifically wound healing, decreasing synovial sac swelling, and increasing nerve conduction velocity. For the study that examined both continuous SWD along with pulsed SWD, continuous SWD treatments resulted in greater healing properties for patients than those in the pulsed SWD group. However, SWD’s efficacy does not necessarily indicate its use as the best treatment. When compared to ultrasound and keophen phosphonophos, no significant differences between treatments groups emerged.

The purpose of this project is to review the current literature on the effects of Short-wave diathermy on tissue healing to determine if this modality is reproducible and accurate. Therefore, future research in the area of SWD and tissue healing should include larger patient populations. In addition to an increased sample size, all studies must have control groups, as one of the studies analyzed lacked such a group. Further studies should also be conducted in direct comparison to other deep heating techniques, such as ultrasound, to differentiate the effect of each treatment. Because the goal of these studies is to determine the effect of SWD on tissue healing, healing the tissue by a specific degree is unnecessary. Instead, SWD should be used to achieve non-thermal effects by using a pulse width of 65µsec, and pulse rate between 100-200Hz, with a treatment time of 15-20 minutes.

FUTURE RESEARCH
Applicability of research in clinical practice is contingent upon the validity of the study itself. Many criteria must be met to ensure that the results of a study are both reproducible and accurate. Therefore, future research in the area of SWD and tissue healing should include larger patient populations. In addition to an increased sample size, all studies must have control groups, as one of the studies analyzed lacked such a group. Further studies should also be conducted in direct comparison to other deep heating techniques, such as ultrasound, to differentiate the effect of each treatment. Because the goal of these studies is to determine the effect of SWD on tissue healing, healing the tissue by a specific degree is unnecessary. Instead, SWD should be used to achieve non-thermal effects by using a pulse width of 65µsec, and pulse rate between 100-200Hz, with a treatment time of 15-20 minutes.

BIBLIOGRAPHY