

*Abstract*

## The Physician as a Success Determining Factor in CT-guided Pain Therapy

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**Background:** Back pain significantly affects quality of life and imposes substantial healthcare costs. CT-guided pain therapy is a controlled treatment method for morphologically proven back pain. However, outcomes can vary, with the physician being a potential influencing factor.

**Methods:** This study included 67 patients with specific back pain undergoing 244 CT-guided treatments by five physicians of varying ages and experience levels. A psychologist observed treatments using a standardized protocol, focusing on verbal and non-verbal interactions. Treatment success was measured using the visual analogue pain scale.

**Results:** Patient outcomes improved significantly when patients perceived their physician as competent and felt understood. Positive affirmation from the physician also correlated with better outcomes.

Conversely, patients expressing pain during intervention experienced less improvement.

**Conclusion:** The physician's behavior and communication play a crucial role in the success of CT-guided pain therapy. Empathy, positive reinforcement, and a supportive atmosphere significantly enhance treatment outcomes. These results emphasize the importance of communication skills training in medical education.

**Future Research:** Future studies should explore the interaction between central reward systems and pain modulation. Investigating the limbic system through functional MRI (fMRI) could provide insights into how emotional and psychological factors influence pain perception and treatment efficacy. Understanding these mechanisms may lead to improved therapeutic strategies and personalized pain management approaches.

*Keynotes: CT-guided therapy, back pain, periradicular therapy, psychological cofactors, expectation effects, physician-patient relationship, limbic system, fMRI*