The Effects of Mental Health Conditions in Patients with Complex Regional Pain Syndrome: A Systematic Review

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Method

Systematic Review

Inclusion Criteria

Types of Studies
- Quasi-experimental studies, prospective and retrospective cohort studies, and analytical cross-sectional studies.

Types of Participants
- Inclusion: Must have a diagnosis of complex regional pain syndrome, including both Type I, or reflex sympathetic dystrophy, and Type II, or causalgia.
- Adults over the age of 18, any gender, race, ethnicity or educational level, all with a diagnosis of CRPS. Studies written in English only.
- Ages ranged from adults over 18 to 89 years of age.
- All were diagnosed with CRPS and were screened for the mental health conditions – depression and PTSD.

Types of Interventions of Interest
- Studies that evaluate the efficacy of mental health treatment interventions, including suicide screening, evaluation for depression and posttraumatic stress disorder.
- All studies describing mental health conditions: pre-existing and co-occurring, as long as there is a diagnosis of complex regional pain syndrome.

Types of Outcomes
- Effective or ineffective pain management and quality of life affected by levels of pain.

Background

Complex regional pain syndrome (CRPS) is a chronic pain condition caused by the damage or malfunction of the peripheral and/or central nervous systems.
- Characterized by prolonged or excessive pain and changes in skin color, temperature, and/or swelling in the affected area.
- Pain is described as “burning,” “pins and needles,” or constant squeezing of the limb, which is often accompanied by alldynia, an increased sensitivity in which contact with the skin is experienced as excessively painful.
- Loss of ability to function in their daily life ultimately affects the patient’s ability to work and support themselves financially.
- Total cumulative healthcare cost 8-years after CRPS diagnosis: $43,026 and $12,037 for pain prescription costs.
- Concurrent financial hardship and mental health conditions are significant contributors to suicidality.
- Evidence Gap: No protocol exists to screen for and manage depression or PTSD when treating CRPS in a pain clinic.

Results

Initial search: 1431 articles. After title screening, removing duplicates, applying further defining inclusion criteria, 27 articles were appraised. 13 articles went through data extraction and were selected for this study.
- Quality of the studies was low to moderate.
- 1736 participants. 26% of all participants were male; 73% female.
- Sample size: ranged from 10 to 698.
- Levels of Evidence were determined using the Joanna Briggs Institute Levels of Evidence and Grades of Recommendation guidelines.
  - Three of the studies are level of evidence 2, three other studies are level of evidence 3, and the remaining seven studies are level of evidence 4.
  - Studies were conducted in New Zealand, Finland, Germany, Iran, Israel, United States, Canada, The Netherlands.


Discussion

Findings
- Full text articles (n=14) were excluded:
  - Case reports or case studies, screening tool development articles, did not focus on the mental health conditions - depression and post-traumatic stress disorder, and did not have CRPS as the main diagnosis of the chronic pain spectrum.
- Total: 13 quantitative studies showing a correlation between depression and post-traumatic stress disorder and treatment efficacy and pain levels experienced by patients diagnosed with CRPS.
- There is support for psychiatric screening in the diagnostic process for people with symptoms of CRPS.

Sustainability

Evidence Transfer Projects

- The findings in this study can be used to develop an evidence-based teaching module to educate providers about the importance of screening for depression and PTSD while diagnosing or treating CRPS.
  - The focus is on primary care providers and pain management specialists.
  - The module will include education about psychiatric screening tools, as well as the assessment questions for suicidal thinking.
  - Treatment guidelines should include basic medications and therapeutic modalities, as well as how to make psychiatric referrals, should the provider encounter more complex cases.
- In the future, developing a pilot study to evaluate the effects of integrating psychiatric screening into CRPS and chronic pain management.
  - The study should determine if it is possible for the primary care/pain management provider to offer basic mental health care.
  - Or is the patient better served to have a referral process to psychiatric services, therefore, more comprehensive care.
- Monitoring this pilot program will ensure patients receive the most up-to-date evidence-based care for the treatment of concurrent CRPS and mental health conditions.

References: upon request

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