

## Introduction

- The United State's 65-and-over population is estimated to double over the next 30 years, from 48 million to 88 million.
- The overall prevalence of major depression in the healthy population of 65 year old and older is 1-4%. This number is 25% in elderly with chronic medical illness.
- The prevalence of chronic pain in elderly population is 55% in the population of 60 year old and above<sup>14</sup> and 62% in the population of 75 year old and above.
- The risk of depression increases by 2.5 to 4.1 times with concurrent chronic pain.
- Due to the strong correlation of these two conditions, treatment of each can potentially improve the other.

## Methods

- A systematic literature review was carried out using PRISMA model on PubMed on December 1<sup>st</sup>, 2020, by five authors
- Search terms included (Major depressive disorder OR MDD OR unipolar depression) AND (chronic pain) AND (elderly).

Inclusion criteria were as follows:

- 1) Studies should report on depression and chronic pain in elderly (age 65 and above)
  - 2) Studies in English only
  - 3) Case report, case series, met analysis published between 2010-2020
  - 4) Studies must include a description of treatment modalities.
- Articles were reviewed in two separate levels, abstract review followed by full article review.
  - Eligible articles were included in the study by the five independent authors.

## Results

- 540 papers were found on PubMed
- 37 papers were approved after abstract level review
- 15 papers were finalized after full literature review
- Our review showed co-occurrence of chronic pain and depression in 13% of elderly population
- Common pain symptoms were related to cancer, back pain and arthritis.

## Discussion

- A variety of treatments were seen through the review that can be categorized as pharmacological and non-pharmacological.
- The treatments includes, dog assisted therapy (DAT), depression and pain (DROP) program, medical marijuana, trans-cranial magnetic stimulation (TMS), mindfulness-based cognitive therapy, pain care management, duloxetine combined with pain care management, cognitive behavioral therapy (CBT), antidepressants, and CBT combined with antidepressants
- Management of chronic pain and depression especially in elderly population requires a multi-disciplinary team based approach and all disciplines should work collaboratively in order to deliver the best care possible.

## Conclusions

This review highlights the importance of meticulous history taking, screening for depression and chronic pain using appropriate tools, and treating using a combination of pharmacological and non-pharmacological options available for every individual for a better outcome.

## References

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