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Review of Literature to Investigate Evidence Based Research for Military Members Living with COPD

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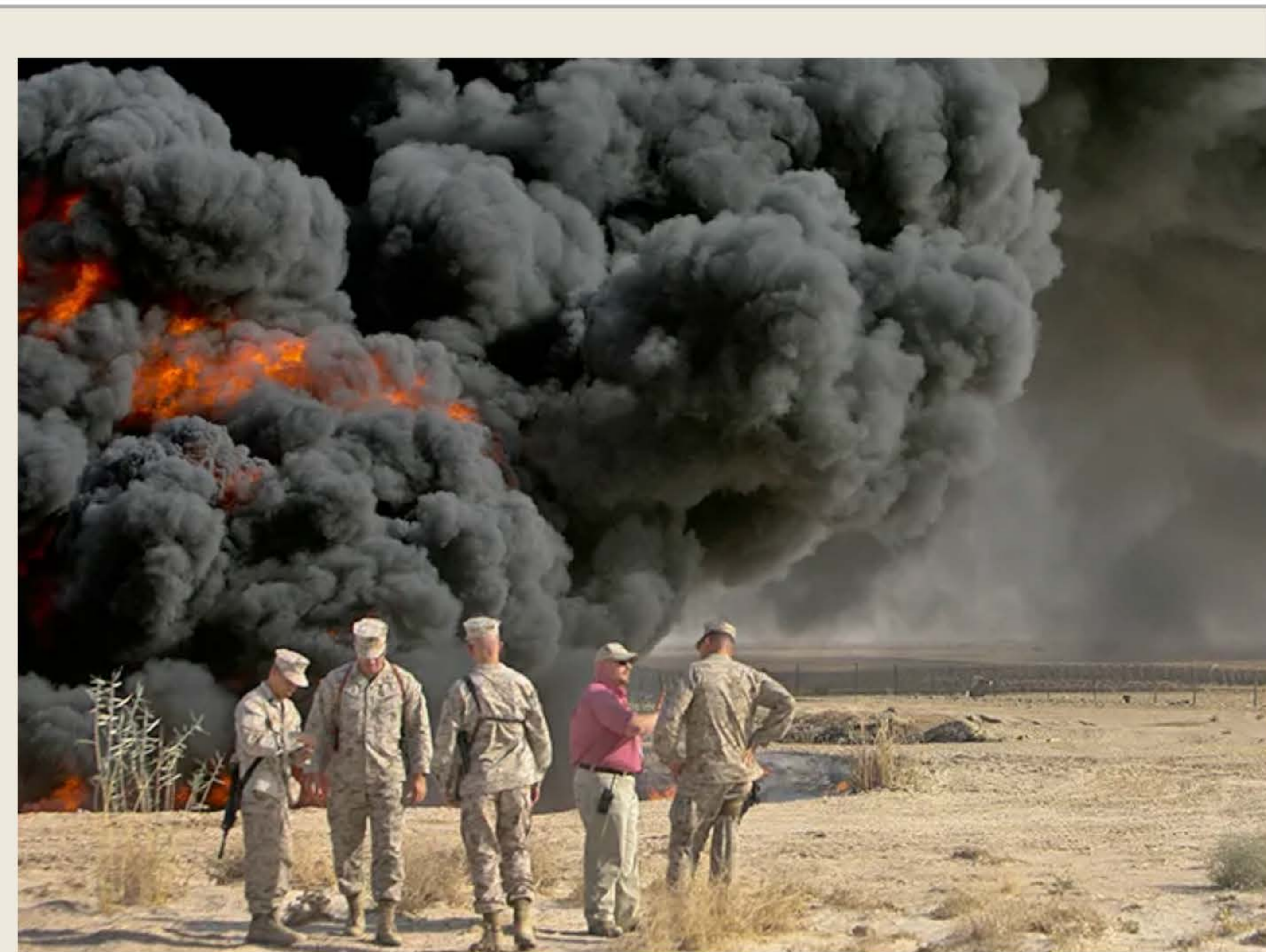
Review of Literature to Investigate Evidence Based Education for Military Members Living with COPD

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Methods

A literature review was conducted of research from 2019 to 2024. A BOOLEAN strategy was used with the word "AND". Proquest, PubMed, Google Scholar, and EBSCO Host Web were utilized as the search engines. Articles were selected based on the highest level of evidence.

Keywords: COPD, military, active duty, education.

References



Objective

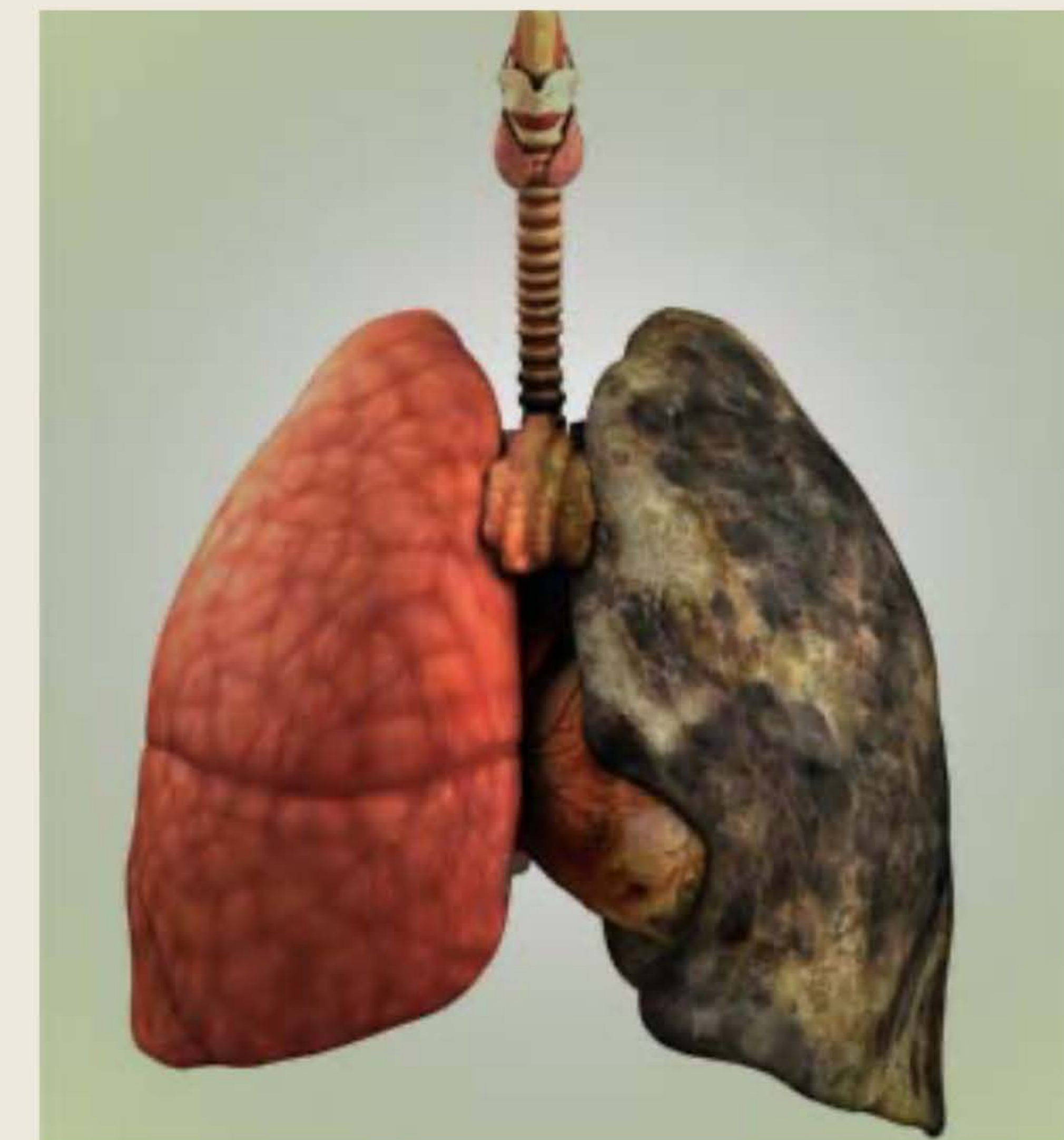
Chronic obstructive pulmonary disease (COPD) is a disease that causes airflow blockage and breathing-related problems. COPD causes fatigue, breathing difficulty, impaired oxygenation, mucous production, and wheezing. Centers for Disease Control states that there are 14.2 million U.S. adults diagnosed with COPD (CDC, 2021). There is an estimated 8% to 19% of military personnel diagnosed with COPD (Bamonti et al, 2022). Military personnel are at risk for COPD complications related to increased chemicals and poor air quality exposure. This literature review explored educational interventions to reduce COPD complications for military members. The research question for this project is: *What are the most effective education strategies that can help reduce complications for active duty military members currently living with COPD?*

Results/Findings

Four articles were selected for the literature review. The three meta analysis articles supported a link between physical, air borne, and chemical factors contributing to pulmonary health. The three meta-analyses supported patient education to prevent complications model. The one systematic review cited self-learning as the most effective education strategy for those suffering with COPD. Self learning is defined as "education focusing on changing health behaviors through knowledge, goal setting and development of action plans (Blackstock & Webster, 2007). Blackstock et al, (2007) discovered a direct link between self-learning and a decrease in hospital admissions.

Table IV. Summary of education delivered in each study

Study	Info on COPD	Breathing and cough techniques	Energy, relaxation or stress	Medications	Using an action plan	Smoke cessation	Diet	Self care	Sex and emotions	Exercise program	Travel and leisure	Community support
Bourbeau [17]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Emery [18]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gallefoss [15] Gallefoss and Bakke [16] Gallefoss and Bakke [14] Gallefoss and Bakke [13]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Gourley et al. [19]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Howland et al. [20]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Kara and Asti [21]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Littlejohns et al. [22]	No details on educational topics given											
Rea et al. [23]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Tougaard et al. [24]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Watson et al. [25]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓



Conclusion

The review of literature supports evidence that the most effective intervention is patient education for patients with COPD. This education should describe the risks, methods to decrease exacerbations, and aftercare for COPD. Patient education for military personnel should include physical, air borne, and chemical components that can significantly change pulmonary health. Further research is needed to study the best and most efficient educational processes for this patient population that could include handouts and online education noted in the literature.