

# EFFECT OF SMOKING CESSATION INTERVENTIONS AMONG PEOPLE WITH LUNG CANCER: A SYSTEMATIC LITERATURE REVIEW

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## Introduction

- Lung cancer (LC) is one of the most common smoking-related malignancies contributing to about 80% of LCs as well as about 80% of all LC-related deaths
- Smoking cessation interventions (SCI) play a vital role after LC diagnosis and hence there is a pressing need to clarify its role in the care of people with LC.
- SCI includes behavioral counseling with or without pharmacological interventions (varenicline, bupropion, or nicotine-replacement therapy).
- Given the limited research to date, and particularly the lack of studies reporting results from randomized controlled trials (RCTs), assumptions that SCI would be effective among this apportionment should be made with utmost caution.
- This systematic literature review (SLR) was conducted to determine the efficacy or effectiveness of SCI in people with LC.

## Objectives

The objective of this SLR was to assess the efficacy/effectiveness of SCI in people with LC.

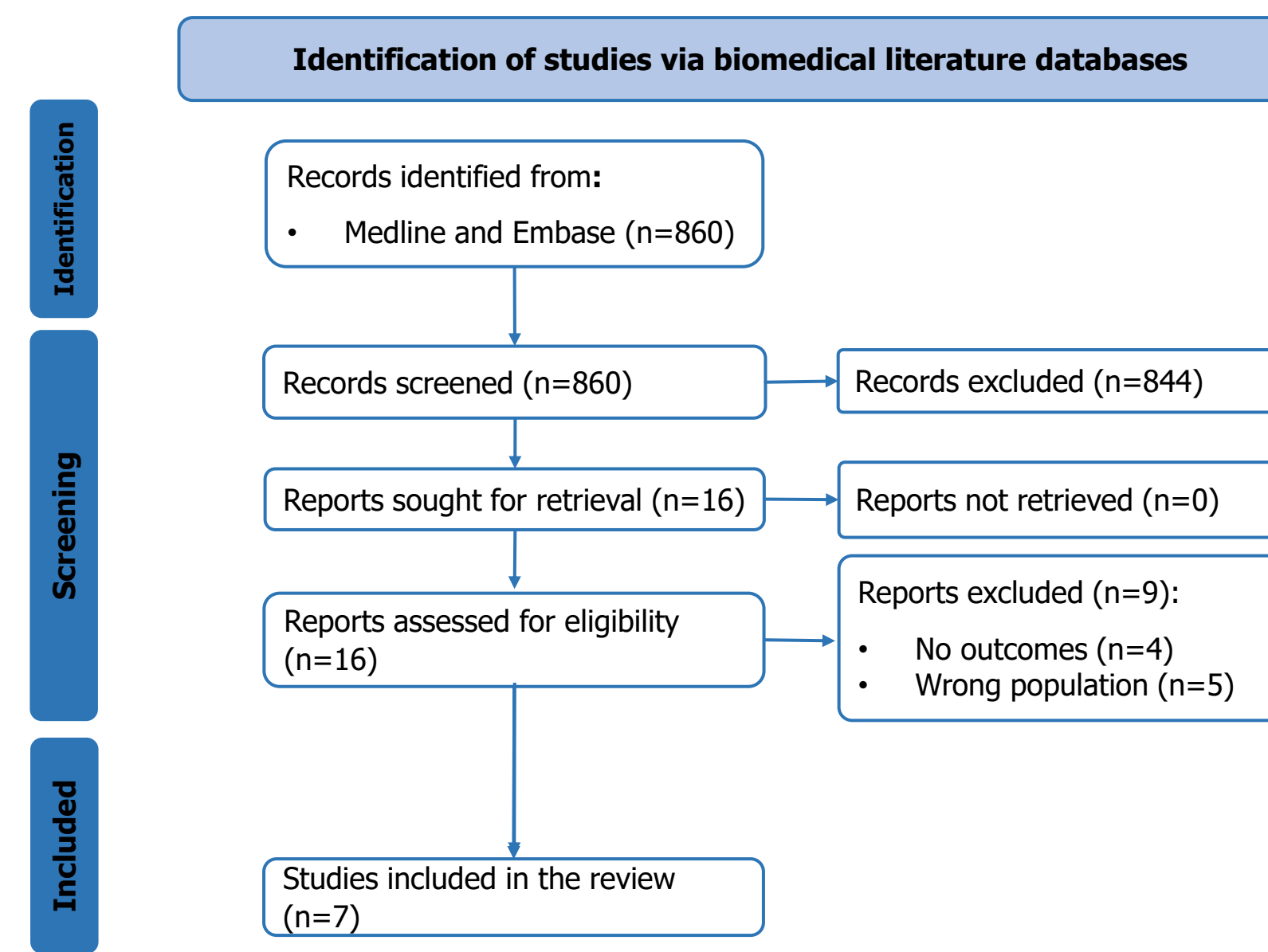
## Methods

- Medline and Embase databases were searched from database inception to May 2022 for relevant studies published in English language.
- Studies were assessed for inclusion/exclusion by two independent reviewers based on a pre-defined eligibility criteria. Any disagreement was resolved by a third reviewer.
- Studies published in the English language assessing the efficacy/effectiveness of SCI in people with LC were included.
- Data were extracted from the relevant studies by two independent reviewers in a pre-designed extraction template.

## Results

- Of the 860 articles screened, a total of 7 studies were included in the final analysis, as shown in Figure 1.

Figure 1: PRISMA diagram



- Three studies were prospective; two retrospective, one RCT, and one was a quasi-experimental study as shown in Figure 2. All studies, but one, were conducted in the US.

Figure 2: Study design

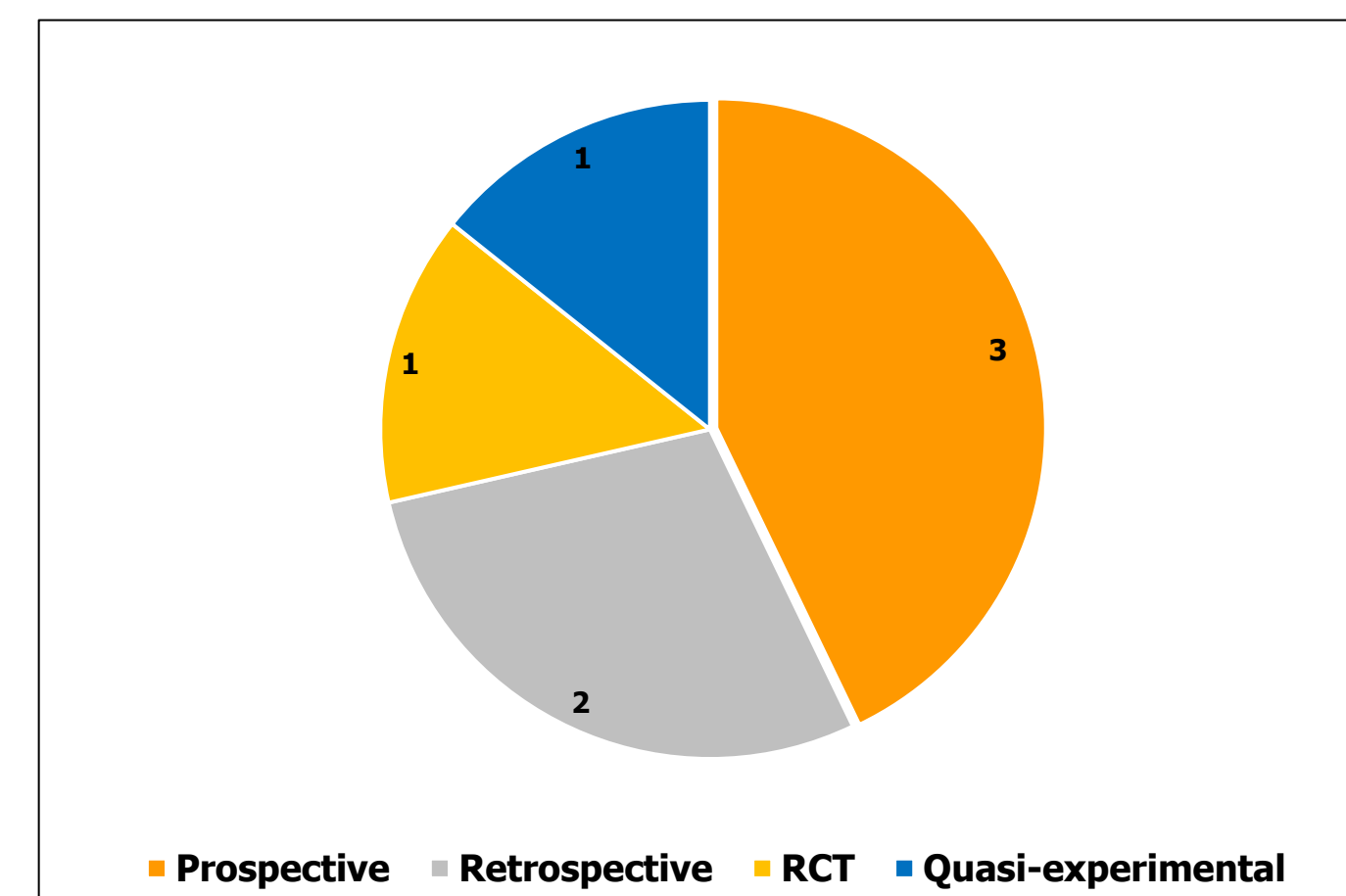
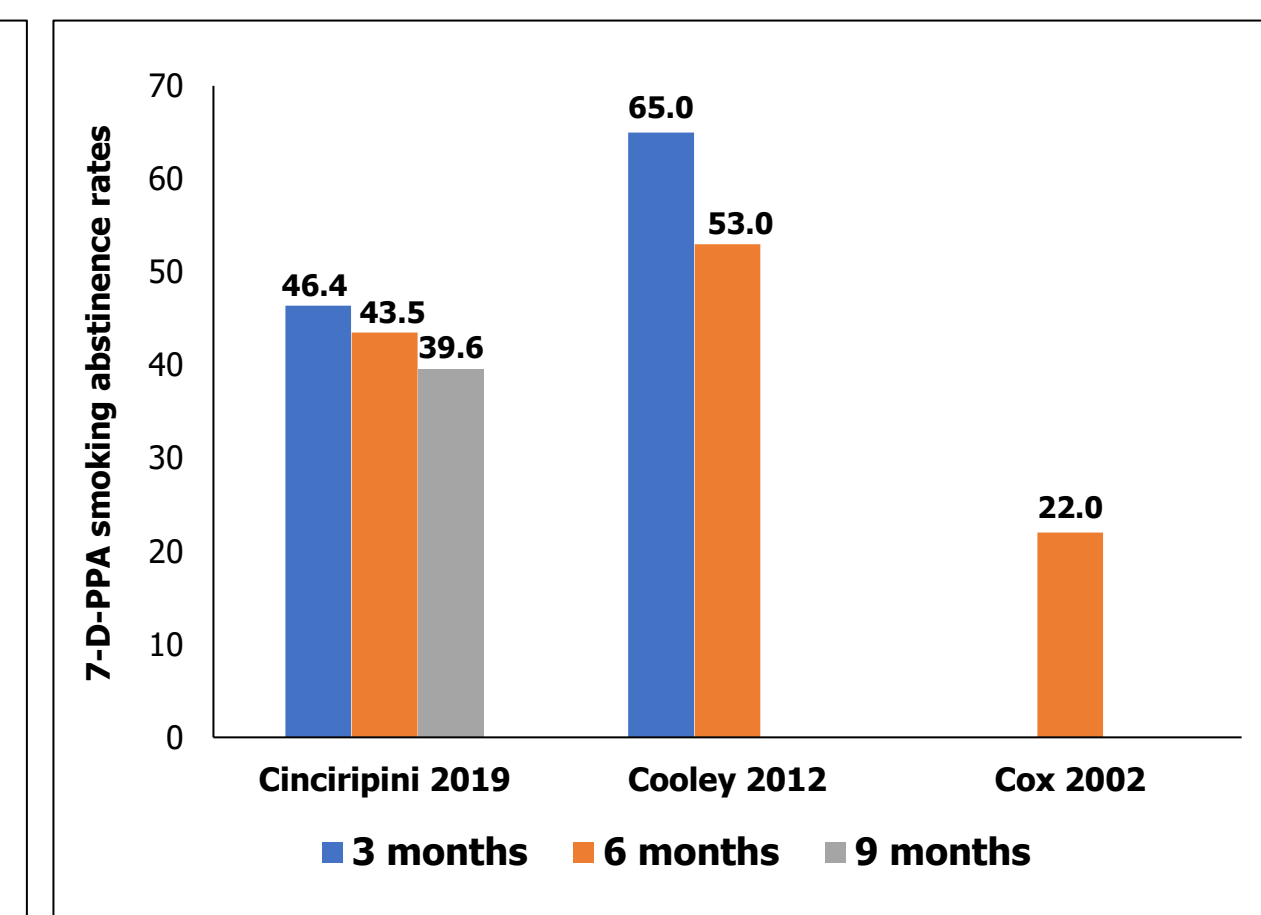
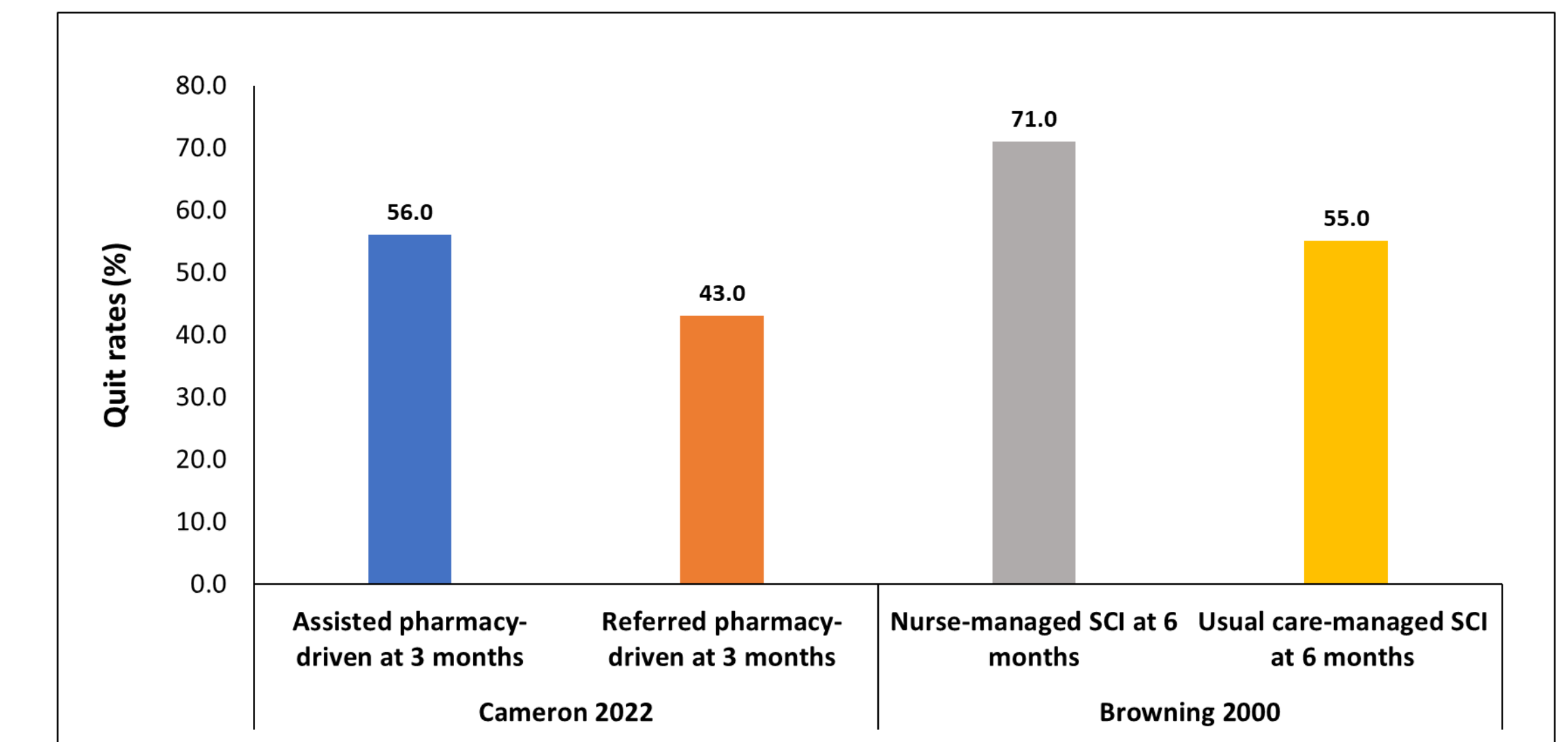


Figure 3: 7-D-PPA smoking abstinence rates



- Outcomes assessed were patient-reported and/or biochemically tested quit and abstinence rates at three and six months.

Figure 4: Quit rates (%)



- Seven-day-point-prevalence-abstinence (7-D-PPA) rates were generally higher at 3-month follow-up (46%-65%) compared with rates at 6-month follow-up (22%-53%), and it further reduced to 40% at 9-month follow-up (Figure 3).
- Among two studies comparing different SCI, higher self-reported quit rates were observed at three months for assisted vs. referred pharmacy-driven SCI (56% vs 43%) and at 6-month for nurse-managed SCI vs. usual care (71% vs. 55%) (Figure 4).

## Conclusions

The lack of good-quality studies identified in the review precludes any firm conclusions on the absolute or comparative effectiveness of available SCI for people with LC. There is an apparent motivation among people with LC to quit smoking, and there are proven benefits of quitting smoking; therefore, there is a need to perform good quality studies assessing the effectiveness of available SCI in LC.