Appendix A: Search Strategy and Results

Database: Ovid MEDLINE: Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE® Daily and Ovid MEDLINE® <1946-Present>

Search Strategy:

1. (((Marijuana or marihuana or cannabis or cannabinoid* or psychoactive product* or psychoactive substances* or narcotic*) adj5 (Legaliz* or legalis* or decriminal* or depenaliz* or depenalis* or deregulat* or liberaliz* or liberalis*)).tw,kf.
2. (((marijuana or marihuana or cannabis or cannabinoid*) adj1 (policy or policies or law or laws or licens* or legislation or dispensar* or store or stores or regulat* or recreational or medical or medicinal or nonmedical or legal*).ti.
3. (legal high or legal highs).tw.kf.
5. 2 or 3 or 4
6. new psychoactive product*.tw.kf.
7. novel psychoactive product*.tw.kf.
8. novel psychoactive substance*.tw.kf.
10. novel psychoactive drug*.tw.kf.
11. new psychoactive substances*.tw.kf.
12. Designer Drugs/sd [Supply & Distribution]
13. Medical Marijuana/sd [Supply & Distribution]
14. exp Street Drugs/lj, sd [Legislation & Jurisprudence, Supply & Distribution]
15. Marijuana Smoking/lj [Legislation & Jurisprudence]
17. "Drug and Narcotic Control"/lj [Legislation & Jurisprudence]
18. or/6-17
19. (Legal* or decriminal* or depenaliz* or depenalis* or deregulat* or liberaliz* or liberalis* or policy or policies or law or laws or licens* or legislation or regulat*).ti.
20. 18 and 19
21. 5 or 20
22. limit 21 to (clinical study or clinical trial, all or comparative study or evaluation studies or meta analysis or multicenter study or observational study or pragmatic clinical trial or systematic reviews or validation studies)
23. Epidemiologic studies/
24. exp case control studies/
25. exp cohort studies/
27. (cohort adj (study or studies)).tw.
28. Cohort analy$.tw.
29. (Follow up adj (study or studies)).tw.
30. (observational adj (study or studies)).tw.
31. Longitudinal.tw.
32. Retrospective.tw.
33. Cross sectional.tw.
34. Cross-sectional studies/
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35  or/23-34 [ Observational Studies search filter used by SIGN (Scottish Intercollegiate Guidelines Network http://www.sign.ac.uk/methodology/filters.html#obs ]
36   21 and 35
37   exp Epidemiologic Methods/
38   amphetamine-related disorders/ep or cocaine-related disorders/ep or drug overdose/ep or inhalant abuse/ep or marijuana abuse/ep or exp opioid-related disorders/ep or phencyclidine abuse/ep or psychoses, substance-induced/ep or substance abuse, intravenous/ep
39   Prevalence/
40   Incidence/ or incidence.ti,ab,kw.
41   (harm or harms).tw,kf.
42   ("marijuana use" or "marijuana availability" or "cannabis use" or cannabis availability or "drug use").tw,kf.
43   or/37-42
44   21 and 43
45   1 or 22 or 36 or 44
46   45 not (exp animals/ not humans.sh.)
47   limit 46 to (comment or editorial or letter)
48   46 not 47
49   limit 48 to yr="1970 -Current"

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Appendix B: Quality Appraisal Checklist


1. Is the hypothesis/aim/objective of the study clearly described?
   - Yes (1)
   - No (0)

2. Are the main outcomes to be measured clearly described in the Introduction or Methods section? *If the main outcomes are first mentioned in the Results section, the question should be answered no.*
   - Yes (1)
   - No (0)

3. Are the characteristics of the individuals included in the study clearly described?
   In cohort studies and trials, inclusion and/or exclusion criteria should be given.
   - Yes (1)
   - No (0)

4. Are the interventions of interest clearly described?
   - Yes (1)
   - No (0)

5. Are the distributions of principal confounders in each group of subjects to be compared clearly described?
   - Yes (2)
   - Partially (1)
   - No (0)

6. Are the main findings of the study clearly described? *Simple outcome data (including denominators and numerators) should be reported for all major findings so that the reader can check the major analyses and conclusions. (This question does not cover statistical tests which are considered below).*
   - Yes (1)
   - No (0)

7. Does the study provide estimates of the random variability in the data for the main outcome (e.g., IQR, standard deviation, confidence interval, etc.)?
   - Yes (1)
   - No (0)
   - N/A [there is no variability because data come from the entire population] (1)
Appendix B: Quality Appraisal Checklist

8. Have actual probability values been reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001? (Confidence intervals are acceptable in place of p-values)
   - Yes (1)
   - No (0)

9. Were the subjects that were asked to participate in the study representative of the entire population from which they were recruited? The study must identify the source population for participants and describe how they were selected. Participants would be representative if they comprised the entire source population or a random sample. Random sampling is only feasible where a list of all members of the relevant population exists.
   - Yes (1)
   - No (0)
   - Unable to determine (0)

10. Were those subjects who agreed to participate representative of the entire population from which they were recruited? The proportion of those asked who agreed should be stated. Validation that the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study sample and the source population.
   - Yes (1)
   - No (0)
   - Unable to determine (0)

11. If any of the results of the study were based on “data dredging”, was this made clear? Any analyses that had not been planned at the outset of the study should be clearly indicated. If no retrospective unplanned subgroup analyses were reported, then answer yes.
   - Yes (1)
   - No (0)
   - Unable to determine (0)

12. In trials and cohort studies, do the analyses adjust for different lengths of follow-up of participants, or in case-control studies, is the time period between the intervention and outcome the same for cases and controls? Where follow-up was the same for all study participants the answer should be yes. If different lengths of follow-up were adjusted for by, for example, survival analysis the answer should be yes. Studies where differences in follow-up are ignored should be answered no.
   - Yes or N/A (1)
   - No (0)
   - Unable to determine (0)

13. Were the statistical tests used to assess the main outcomes appropriate? The statistical techniques used must be appropriate to the data. For example non-parametric methods should be used for small sample sizes. Where little statistical analysis has been undertaken but where there is no evidence of bias, the question should be answered yes. If the distribution of the data
Appendix B: Quality Appraisal Checklist

(normal or not) is not described it must be assumed that the estimates used were appropriate and the question should be answered yes.

☐ Yes (1)
☐ No (0)
☐ Unable to determine from article (0)

14. Were the main outcome measures used accurate (valid and reliable)? For studies where the outcome measures are clearly described, the question should be answered yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered as yes.

☐ Yes (1)
☐ No (0)
☐ Unable to determine (0)

15. Were the participants in different comparison groups recruited from the same population or from comparable populations? Answer NO for studies without a comparison/control group.

☐ Yes (1)
☐ No (0)
☐ Unable to determine (0)

16. Were study subjects in different intervention groups recruited over the same period of time? Answer NO for studies without a comparison/control group.

☐ Yes (1)
☐ No (0)
☐ Unable to determine (0)

17. Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?

☐ Yes (1)
☐ No (0)
☐ Unable to determine (0)
Appendix C: Included Studies

INCLUDED STUDIES

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