# Studies citing ESC-DAG method

Indoor dust bacterial and fungal microbiota composition and allergic diseases: a scoping review

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# Packages and session information

```
if (!require("pacman", quietly = TRUE)) {
  install.packages("pacman")
}
pacman::p_load(
 tidyverse, # Used for basic data handling and visualization.
 table1,  # Used for column labeling.
readxl,  # Import data in xlsx format.
gt,  # Print and save html tables.
 readxl,
           # Used to generate package citations in markdown format.
  report
R version 4.4.0 (2024-04-24 ucrt)
Platform: x86_64-w64-mingw32/x64
Running under: Windows 11 x64 (build 22631)
Matrix products: default
locale:
[1] LC_COLLATE=Spanish_Mexico.utf8 LC_CTYPE=Spanish_Mexico.utf8
[3] LC_MONETARY=Spanish_Mexico.utf8 LC_NUMERIC=C
[5] LC_TIME=Spanish_Mexico.utf8
time zone: Europe/Berlin
tzcode source: internal
attached base packages:
[1] stats
              graphics grDevices utils datasets methods base
other attached packages:
 [1] report_0.5.8 gt_0.10.1
                                      readxl_1.4.3
                                                      table1_1.4.3
 [5] lubridate_1.9.3 forcats_1.0.0 stringr_1.5.1
                                                      dplyr_1.1.4
 [9] purrr_1.0.2 readr_2.1.5
                                      tidyr_1.3.1
                                                      tibble_3.2.1
[13] ggplot2_3.5.1 tidyverse_2.0.0 pacman_0.5.1
```

# **Description**

A list of papers citing the ESC-DAG method (Ferguson et al., 2020) were retrieved from PubMed on 25/05/2024, yielding a total of 48 records. Of these, only 22 papers published between 2023 and 2024 were assessed in order to focus on the most recent applications of this method.

Only 15 studies that explicitly declared having used this method were included for analysis. Thus, 7 studies were excluded for the following reasons:

Exclude	n
ESC-DAG not used	3
protocol	1
review	3

Studies included: (Antonsen et al., 2024; Campbell and Cullen, 2023; Corona et al., 2024; Ghazal and Soyiri, 2023; Guivarch et al., 2023; Lewis et al., 2023; Li et al., 2023; Liao et al., 2024; Liu et al., 2023; Lock et al., 2023; Peng et al., 2024; Prieto, 2024; Riseberg et al., 2023; Xiang et al., 2024; Zhu et al., 2023)

The full text, including main manuscript, supplementary material, and associated repositories were reviewed for the following characteristics which were assessed and recorded:

Characteristic	Definition	Possible values
Used DAG	Explicit mention of having used a DAG to guide study design/analysis	no; yes
Showed DAG	Presentation of a visual graphic or code for reproduction of graph in a visual display program.	no; yes
DAG code	Presentation of code for reproduction of DAG	no; yes
Documentation	Documentation of all steps for the production of	no; partial; yes
of DAG	DAG, as suggested by (Ferguson et al., 2020)	
PICO/PECO	Explicit mention of having followed a PICO/PECO	unknown; yes; other
question followed	question for retrieving papers for DAG construction	(i.e., PO question)

### **Results**

#### **Used DAG**

Used DAG	n	Percentage
yes	15	100

#### **Showed DAG**

Showed DAG	n	Percentage
no	3	20
yes	12	80

Studies that presented a DAG: (Antonsen et al., 2024; Campbell and Cullen, 2023; Ghazal and Soyiri, 2023; Lewis et al., 2023; Li et al., 2023; Liu et al., 2023; Lock et al., 2023; Peng et al., 2024; Prieto, 2024; Riseberg et al., 2023; Xiang et al., 2024; Zhu et al., 2023)

#### **DAG** code

DAG code	n	Percentage
no	12	80
yes	3	20

Studies presenting DAG code: (Antonsen et al., 2024; Peng et al., 2024; Riseberg et al., 2023)

#### **Documentation of DAG**

Documentation of DAG	n	Percentage
no	6	40.0
partial	5	33.3
yes	4	26.7

Studies fully documenting DAG: (Antonsen et al., 2024; Campbell and Cullen, 2023; Lock et al., 2023; Riseberg et al., 2023)

Studies with partial documentation: (Lewis et al., 2023; Li et al., 2023; Peng et al., 2024; Prieto, 2024; Zhu et al., 2023)

# PICO/PECO question followed

PICO/PECO question followed	n	Percentage
PO	1	6.7
unknown	11	73.3
yes	3	20.0

Studies explicitly using a PICO/PECO question: (Campbell and Cullen, 2023; Riseberg et al., 2023; Zhu et al., 2023)

Studies using a PO question: (Peng et al., 2024)

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