

BMJ Open Predicting falls in community-dwelling older adults: a systematic review of prognostic models

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ABSTRACT

Objective To systematically review and critically appraise prognostic models for falls in community-dwelling older adults.

Eligibility criteria Prospective cohort studies with any follow-up period. Studies had to develop or validate multifactorial prognostic models for falls in community-dwelling older adults (60+ years). Models had to be applicable for screening in a general population setting.

Information source MEDLINE, EMBASE, CINAHL, The Cochrane Library, PsycINFO and Web of Science for studies published in English, Danish, Norwegian or Swedish until January 2020. Sources also included trial registries, clinical guidelines, reference lists of included papers, along with contacting clinical experts to locate published studies.

Data extraction and risk of bias Two authors performed all review stages independently. Data extraction followed the Critical Appraisal and Data Extraction for Systematic Reviews of Prediction Modelling Studies checklist. Risk of bias assessments on participants, predictors, outcomes and analysis methods followed Prediction study Risk Of Bias Assessment Tool.

Results After screening 11 789 studies, 30 were eligible for inclusion (n=86 369 participants). Median age of participants ranged from 67.5 to 83.0 years. Falls incidences varied from 5.9% to 59%. Included studies reported 69 developed and three validated prediction models. Most frequent falls predictors were prior falls, age, sex, measures of gait, balance and strength, along with vision and disability. The area under the curve was available for 40 (55.6%) models, ranging from 0.49 to 0.87. Validated models' The area under the curve ranged from 0.62 to 0.69. All models had a high risk of bias, mostly due to limitations in statistical methods, outcome assessments and restrictive eligibility criteria.

Conclusions An abundance of prognostic models on falls risk have been developed, but with a wide range in discriminatory performance. All models exhibited a high risk of bias rendering them unreliable for prediction in clinical practice. Future prognostic prediction models should comply with recent recommendations such as Transparent Reporting of a multivariable prediction model for Individual Prognosis or Diagnosis.

PROSPERO registration number CRD42019124021.

BACKGROUND

The propensity to fall is a serious and common health issue among older adults

Strengths and limitations of this study

- This systematic review is the first to summarise all prediction models on falls in community-dwelling older adults of the general population.
- The extensive search strategy supports identifying all available prospective cohort studies predicting falls in community-dwelling older adults (60+ years).
- Guidelines on prediction modelling reviews were strictly followed for search strings, data extraction (Critical Appraisal and Data Extraction for Systematic Reviews of Prediction Modelling Studies), risk of bias assessment (Prediction study Risk Of Bias Assessment Tool), along with development (Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA)-Protocol) and transparent reporting of the review (PRISMA).
- All review stages were performed independently and in duplicate.
- The exclusion of non-English language studies constitutes a risk of selection bias.

with one-third of community-dwelling adults ≥ 65 years and half of those ≥ 80 years falling annually.¹ Consequences of falls are considerable with loss of independence, increased morbidity and mortality.²⁻⁴ Furthermore, the healthcare costs of falls increase substantially with age.⁵ Therefore, as the prevalence of older fallers is predicted to increase with changes in demography, preventing falls is of utmost importance.⁶

Falls interventions have proven effective when aimed at older adults with a high risk of falling.⁷ However, identifying these high-risk individuals is not straight-forward since falling is multifactorial. Prognostic models combine risk factors to estimate the individual's risk of a future outcome.⁸ Thus, a prognostic model may be a valuable tool to discriminate between older adults at high versus low risk of falling. To prevent the consequences of falls, healthcare professionals could perform screening in the general population using prognostic models.⁹ However, no systematic

review has addressed prognostic models on falls for community-dwelling older adults.

This systematic review aims to provide an updated overview of available models to be used by healthcare professionals and for researchers to improve on. The primary objective was to describe the discriminatory performance of prognostic models for falls in prospective cohort studies on community-dwelling older adults. Secondary objectives were to describe the study and model characteristics of these models.

METHODS

A protocol was preregistered before commencing the review process¹⁰ and is available in data supplements (online supplemental appendix 1). The review and its protocol followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement (PRISMA)¹¹ and PRISMA-Protocols,¹² respectively. A completed PRISMA Checklist is available in data supplements (online supplemental appendix 2). During the review process, we found the protocol unclear in terms of eligibility criteria for the study designs, participants, models, outcomes and settings, for which reason we have further described these. Rationales for the changes are given in the protocol. **Box 1** provides an introduction to commonly used prediction modelling terms.

Eligibility criteria

Participants and setting

All participants had to be community dwelling, 60 years of age or older, and be recruited from a general population setting. For that reason, we excluded models intended for hospitals, general practitioners and nursing homes. Studies restricted to participants with prespecified diseases, conditions or symptoms such as Parkinson's disease or stroke were excluded to raise external validity. However, we included studies that excluded certain types of community-dwelling older adults, such as those with known neurological, spinal or cognitive disorders.

Index (model)

Studies had to present a final multifactorial prognostic model defined by the inclusion of two prognostic factors or more. This definition was chosen as causes of falls are multifactorial and coexisting.¹ Thus, prognostic factor studies investigating the association between predictors and prospective falls were excluded. Both development studies and validation studies with and without model updating were included.

Outcome

We included studies defining falls as 'an unexpected event in which the participants come to rest on the ground, floor or lower level'.¹³ However, studies without an outcome definition were also included since this would not rule out the definition mentioned above. We excluded studies using fall definitions excluding certain

Box 1 Commonly used prediction modelling terms with examples related to falls

Prognostic factor

A prognostic factor, also called a predictor, is any measure that, among people with a given health condition, is associated with a subsequent clinical outcome such as falls.⁵⁷

Prognostic prediction model

A prognostic prediction model is a statistical combination of multiple predictors from which risks of a longitudinal outcome, for example, falls, can be calculated for individuals.⁸

Development and validation studies

A prediction model development study aims to develop a prediction model by combining essential predictors from a data set into a model and testing its predictive performance within the same development data set.⁵⁴ A model validation study aims to assess the predictive performance of a developed prediction model using new data not used in the development of the model.⁵⁴

Model performance, overfitting and internal validation

A model's predictive performance is termed model performance. This term encompasses several measures with the two most important being discrimination and calibration.¹⁷ Estimates of model performance derived directly from a data set used for developing the model is termed the apparent performance.⁵⁴ Since the model is fitted explicitly to the development data set, predictions on new data, that is, new older adults with different characteristics, may yield poorer model performance estimates, that is, poor generalisability. Hence, clinicians would typically find the apparent performance optimistic in terms of predicting a fall in their population which has not been used for developing the model. In consequence, fall preventive interventions could end up being provided to those not needing it and not offered to those actually in need hereof. The optimism in apparent performance is due to the model fitting too well to its data, a term known as overfitting. In such situations, predictions would be biased when the model is used on older adults with different characteristics, that is, frequency distributions of predictors.¹⁷ Estimating the amount of optimism in the development study's model can be done using internal validation techniques such as bootstrap validation. However, since the population of older adults is heterogeneous, generalising a model's performance to the entire population would be more clinically relevant. Here, internal validation procedures fail, and the model should instead be tested in a validation study.

Model discrimination

Model discrimination is a performance measure referring to the models' ability to correctly predict if an individual will experience a fall or not. Therefore, as an example, it can be used by healthcare professionals to assess how confident a model assigns individuals to a high-risk group and guides the clinician when allocating fall preventive interventions.⁵⁸ A perfectly discriminating model assigns a higher risk of falling to all older adults experiencing a fall. Likewise, a lower risk is appointed to those not suffering a fall. Usually, discrimination is reported as a concordance index (c-index) or an area under the curve, but other measures are also available. Here, a value of 1 equals perfect discrimination, and 0.5 indicates that the model discriminates no better than chance. If a model shows poor discriminative performance, it could predict low-risk older adults to fall and high-risk older adults to not fall.

Model calibration

Model calibration is a performance measure used to examine whether a model over- or underestimates the predicted risks in a sample. More

Continued

Box 1 Continued

specifically, it is the agreement between predictions made by the model and the frequency of the outcome to be predicted.⁵⁴ Healthcare professionals can use this information to assess how confident the model predicts the specific risk of having a fall for the individual. In brief, it is crucial when counselling older adults on their fall risk that the risk estimate is as accurate as possible.⁵⁸ If the model predicts a person to have a 10% risk of falling within 1 year, the observed frequency of people falling with such a predicted risk should be 10 out of 100 for the model to have good calibration. However, should the frequency be only 5 of 100 people, the model overestimates the risk. Calibration is typically assessed graphically using calibration plots. In development studies, models are usually calibrated well to the data from which they are developed and therefore yield limited information.⁴ Thus, it is more relevant how well the model is calibrated when introduced to a new sample of older adults used to validate the model. This information would enable healthcare professionals to evaluate whether the model over- or underestimates the risk of falling when used in their population of community-dwelling older adults. If the model is not correctly calibrated, it could predict low-risk older adults to have a higher risk and vice versa, or systematically overestimate or underestimate all predictions.

types of falls presumed to be due to a specific cause, for example, external forces or acute medical events. This approach was chosen since postfall classification methods may introduce recall bias.¹⁴ Finally, we did not include studies predicting only injurious falls in older adults since risk factors for these are different from those experiencing non-injurious falls.¹⁵ No restrictions were made on method or timing of outcome assessment other than it had to be prospectively recorded.

Study designs

We only included prospective cohort studies since this study design allows optimal control when measuring predictors and outcomes. Thus, it is the recommended study design for prognostic modelling studies.¹⁶ We excluded randomised controlled trials since these can have different limitations incorporated within their design. Typically, strict eligibility criteria are used that generate a highly selected sample of participants. This narrows predictors' distribution and hence reduces the discriminatory performance in the prognostic models.¹⁷ Also, strict criteria may compromise generalisability to the target population.¹⁸ Lastly, interventions in the study may also influence the discriminatory performance of the models.¹⁸ Retrospective cohort studies were also excluded due to issues of missing data and restrictions on which predictors to apply since data are already collected.¹⁸

Timing

No restrictions on follow-up or predictive horizon were made since we found it clinically relevant to include models both able to predict falls within short and long periods ahead in time.

Language and publication year

Due to the composition of the study group, we only included published studies reported in English, Danish, Norwegian or Swedish languages. No restrictions on publication year were made.

Information sources

We searched electronic databases, trial registries and clinical guidelines. Furthermore, we consulted with additional clinical experts. Lastly, we screened conference abstracts along with reference lists of both the included studies and systematic reviews found during the search. Databases included Pubmed.gov (PubMed interface), EMBASE (Embase.com), CINAHL (EBSCOhost interface), The Cochrane Library (Wiley interface), PsycINFO (APA PsycNET interface), and Web of Science (Web of Science Core Collection). All databases were searched from inception dates to the 3 January 2020. Trial registries included PROSPERO, ClinicalTrials.gov, WHO International Clinical Trials Registry Platform and Open Grey. Guidelines included Guidelines International Network, the National Institute for Health and Care Excellence, Centre for Reviews and Dissemination and to Health Technology Assessments and Scottish Intercollegiate Guidelines Network. Conference abstracts and studies in trial registries were used to obtain full-text papers through contact with authors. Letters to the editor were excluded.

Search

We used a validated search string for prediction models.¹⁹ With the help of a research librarian in health science, we added the following terms to the search string: independent living, aged and accidental falls. Details on the search string are available online supplemental appendix 3. No search filters were applied. We included 'Aged' as a search term in the search string. Since this would restrict the number of search hits and thus the sensitivity of the search string, we pretested the search string without 'Aged' in all databases before commencing the review. From this, the first 3000 hits were screened independently and in duplicate, and we did not find studies not identified by the final search string. Thus, we believe this had a limited influence on the sensitivity of the search string.

Study selection

Duplicates were removed using EndNote (EndNote X9, Clarivate Analytics, Philadelphia, USA). Two reviewers independently screened titles and abstracts (GVG and JRi) and full-text papers (GVG and KT) according to the inclusion criteria. We contacted authors for clarification when information on this review's eligibility criteria was missing. Disagreement among reviewers was resolved by consensus for one study by including a third reviewer (MGJ). For screening of titles and abstracts along with full-text reading, we used Covidence (Covidence systematic review software, Veritas Health Innovation, Melbourne, Australia. Available at www.covidence.org). Exclusion of studies after full-text reading was performed using a

prioritised list of reasons (online supplemental appendix 4). Reviewers were not blinded to author names, institutions or journal titles.

Data collection process

We developed a standardised data collection form using Research Electronic Data Capture (REDCap),²⁰ a research electronic data capture software, following the Critical Appraisal and Data Extraction for Systematic Reviews of Prediction Modelling Studies checklist.¹⁸ Data extraction was performed in duplicate and independently by two reviewers (GVG and JRi). Independence between reviewers was ensured using a double data entry module in REDCap, thereby denying access to each other's responses. Disagreements among the reviewers were discussed, and the third reviewer (MGJ) was not consulted during data collection since consensus was reached in all studies. We contacted all study authors for retrieval of information on data items not reported. None of the included studies were published more than once.

Data items

We extracted data on the following items: country, publication year, authors, inclusion criteria, exclusion criteria, age, outcome definition, number of falls and fallers, candidate predictors, missing data, choice of statistical analysis, C-statistic and area under the curve (AUC), internal and external validation procedures, final model presentation and sources of funding. If available, 51 data items were extracted from each paper as detailed in online supplemental appendix 5.

Risk of bias and reporting transparency

To follow current recommendations,²¹ the Prediction study Risk Of Bias Assessment Tool²² was used for the risk of bias assessment in individual studies. The tool comprises 20 signalling questions in four domains: participants, predictors, outcomes, and analysis. The tool also includes an evaluation of each model's applicability for the intended population, predictors and outcome of the review. Reporting transparency was assessed using the Transparent reporting of a multivariable prediction model for individual prognosis or diagnosis (Transparent Reporting of a multivariable prediction model for Individual Prognosis or Diagnosis, TRIPOD) adherence assessment form.²³ The bias, applicability and reporting assessments were performed in duplicate and independently by two reviewers (GVG and JRi). Independence between reviewers was ensured using a double data entry module in REDCap, thereby denying access to each other's responses. Disagreements among the reviewers were discussed, and consensus was reached for all studies. Thus, a third reviewer was not consulted for a final decision. The reviewers were not blinded to study authors, institutions or journal titles. The results of the risk of bias assessments of all included studies were incorporated into the qualitative synthesis. We sought to investigate outcome reporting bias by comparing the study papers to their pertaining protocols

to examine whether outcomes were prespecified and not differing from the published paper.

Summary measures and planned method of analysis

The principal summary measure of this systematic review was the discriminatory performance measured either in a C-index or AUC. In the prespecified protocol, we decided not to perform meta-analyses due to the presumed heterogeneity of the prognostic models. This assumption was confirmed after the review was complete. Furthermore, we summarised the study and model characteristics using ranges and percentage proportions when appropriate. When data were available, we summarised continuous measures using medians and IQRs.

Patient public involvement

We did not involve patients or the public in the research.

RESULTS

Study selection

The search yielded 19 612 publications with 11 789 remaining after removal of duplicates. Screening titles and abstracts led to the exclusion of 11 611 publications leaving 178 for full-text reading. Of these, 148 were excluded due to: wrong outcome (n=45), wrong study design (n=45), not being a prediction model (n=25), no full-text paper published (n=14), wrong population (n=8), not multifactorial (n=8) or wrong setting (n=3). Thirty studies met the eligibility criteria and were included.²⁴⁻⁵³ Figure 1 displays the PRISMA flow diagram

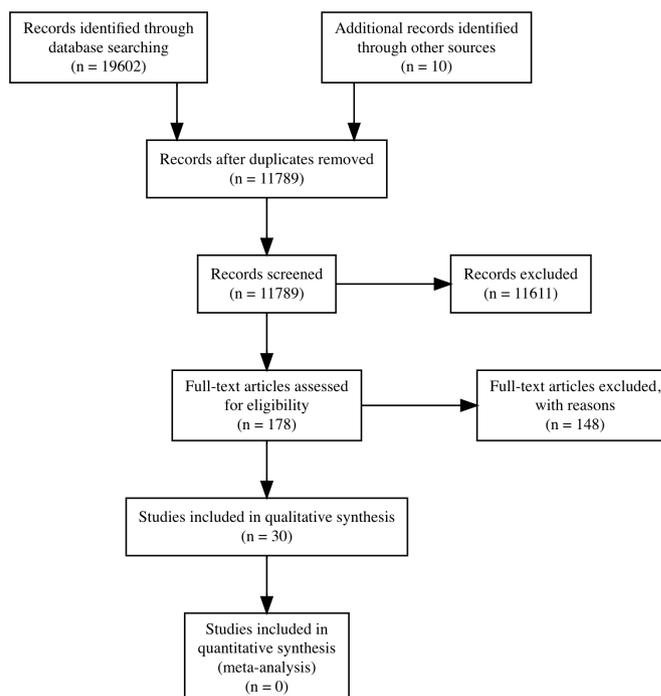


Figure 1 PRISMA diagram of the study selection process. PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses.

for the study selection. Details on excluded papers can be found as online supplemental appendices 6–8.

Characteristics of included studies

A summary of included studies along with models' performance can be found in online supplemental table 1 (online supplemental appendix 9). All studies were published in English from 1994 to 2019. Seventy-two prognostic models were reported, of which 69 models were developed, and three were validated.

Participants

Studies were conducted in Australia, Belgium, Canada, France, Germany, Israel, Italy, Japan, the Netherlands, Malaysia, Spain, the UK and the USA. Sample sizes ranged from 65 to 23 417 participants with median ages from 67.5 to 83 years. Studies used primarily a probability sampling method (n=16), followed by convenience sampling (n=8) and consecutive sampling (n=2). Four studies did not report their sampling methods.

Index/model

The median (IQR) number of predictors in the final models were five (3–9) and ranged from two to 96 predictors. **Figure 2** shows the number of studies including a specific predictor. The most frequently applied predictors were prior falls, age, sex, measures of gait, balance and strength, along with vision and disability. Predictors were measured in homes (n=19), research centres (n=19), or both (n=12). Locations for measuring predictors were not reported for 22 models.

Outcomes and timing

The percentage of fallers ranged from 5.9% to 59%, and the number of recurrent fallers (≥ 2 falls) ranged from 6.3%–54.1%. Models primarily predicted any falls (n=34), that is, single and recurrent falls, and recurrent falls only (n=34). Two models predicted first-time falls^{31 45} and two predicted time to a fall.^{34 46} Participants were followed for a median (IQR) time of 12 (9.75–12) months. Individual study data items extracted are available in online supplemental appendix 10.

Model performance

Discriminatory measures were reported for 40 (55.6%) models. AUCs were 0.49–0.87 and 0.62–0.69 for developed (n=37) and validated (n=3) models, respectively. Corresponding CIs were reported for 27 (37.5%) models. Calibration measures were available for seven (9.7%) models. For validated models (n=1), calibration was imperfect due to over- and underestimated predicted risks of falling for high-risk and low-risk participants, respectively.³⁹ Regarding developed models (n=6), calibration was found acceptable, but studies did not assess model calibration in new participants.^{41 44 47 49}

Risk of bias, reporting transparency and applicability within studies

Risk of bias

Table 1 summarises ratings on risk of bias, applicability and reporting transparency for the individual studies. All

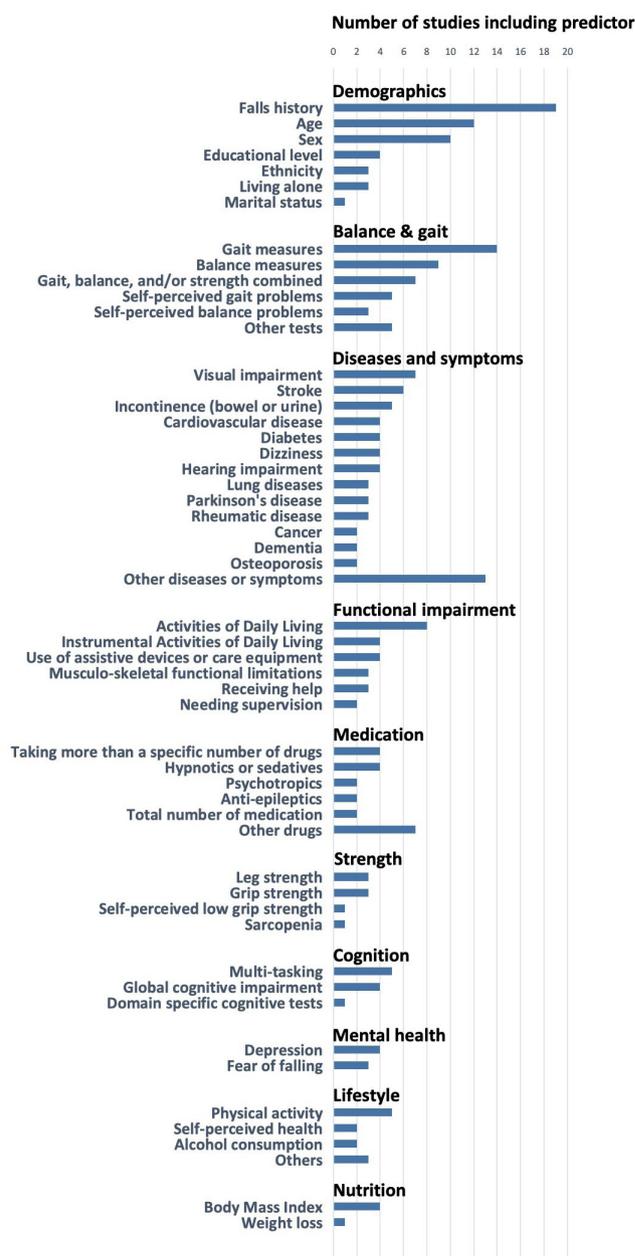


Figure 2 Number of studies using a specific predictor.

studies had a high risk of bias mainly due to methods of analysis and outcome assessment along with restrictive eligibility criteria. Regarding analysis methods, missing data were excluded in 13 out of 30 studies, and no internal validation methods were applied. As to the outcome, only four studies recorded falls daily with monthly notifications.^{25 27 32 35} Also, the majority of studies did not report the outcome definition used or whether outcomes assessors were blinded. Eligibility criteria were found restrictive for the majority of studies due to the exclusion of individuals with falls-risk-increasing conditions. These selective criteria limit the usability of models for the target population of community-dwellers. Overall, risk of bias and applicability assessments were complicated by studies only reporting, on average, 50% of all items recommended in reporting guidelines. Furthermore, this



Table 1 Reporting, risk of bias and applicability ratings of individual studies

Study	Reporting		Risk of bias			Applicability			Overall		
	TRIPOD, %		Participants	Predictors	Outcome	Analysis	Participants	Predictors	Outcome	ROB	Applicability
Yamashita <i>et al</i> ²⁸	34	-	+	+	-	-	-	+	?	-	-
Weiss <i>et al</i> ³²	36	+	+	+	-	-	-	+	+	-	-
Muhaidat <i>et al</i> ³⁵	36	+	+	+	?	-	+	+	?	-	?
Brauer <i>et al</i> ²⁵	37	-	+	+	?	-	-	-	+	-	-
Panzer <i>et al</i> ³⁰	37	-	+	+	-	-	-	+	?	-	?
Maki <i>et al</i> ²⁴	41	+	+	+	-	-	+	+	+	-	+
Bougarides <i>et al</i> ⁵²	41	+	+	+	?	-	+	+	?	-	?
Viccaro <i>et al</i> ³¹	41	+	+	+	-	-	?	+	+	-	?
Lindemann <i>et al</i> ⁵¹	44	-	+	+	-	-	-	+	+	-	-
Singh <i>et al</i> ⁴⁴	44	-	+	+	?	-	-	+	+	-	-
Nandy <i>et al</i> ⁵³	45	+	+	+	-	-	?	+	?	-	?
Okochi <i>et al</i> ⁵⁰	45	+	+	+	-	-	?	+	+	-	?
Rodriguez-Moliner <i>et al</i> ⁴¹	46	-	+	+	-	-	+	+	+	-	+
Gadkaree <i>et al</i> ³⁷	48	+	+	+	-	-	+	+	+	-	+
de Vries <i>et al</i> ³⁴	50	+	+	+	-	-	+	+	+	-	+
Hnizdo <i>et al</i> ³³	52	+	+	+	?	-	-	+	+	-	-
Lohman <i>et al</i> ⁴²	52	+	+	+	-	-	+	+	-	-	-
Gillain <i>et al</i> ⁴⁵	54	-	+	+	-	-	-	-	+	-	-
Delbaere <i>et al</i> ²⁷	55	+	+	+	-	-	+	+	-	-	-
Cawthon <i>et al</i> ³⁸	56	+	+	+	-	-	-	+	+	-	-
Kim <i>et al</i> ⁴³	56	-	+	+	-	-	-	+	?	-	-
Tromp <i>et al</i> ³⁶	57	+	+	+	-	-	+	+	+	-	+
Stel <i>et al</i> ⁴⁸	57	+	+	+	-	-	+	+	+	-	+
Lamb <i>et al</i> ²⁶	61	+	+	+	-	-	-	+	?	-	-
Yamashita <i>et al</i> ²³	61	+	+	+	-	-	+	+	-	-	-
Stalenhoeft <i>et al</i> ⁴⁷	62	?	+	+	-	-	+	+	+	-	-
Palumbo <i>et al</i> ⁴⁰	69	+	+	+	-	-	?	+	?	-	?
Bongue <i>et al</i> ⁴⁶	70	-	+	+	?	-	-	+	+	-	-
Palumbo <i>et al</i> ³⁹	73	+	+	+	-	-	+	+	?	-	?
Pluijm <i>et al</i> ⁴⁹	76	+	+	+	-	-	+	+	+	-	+

Note: + and green colour indicates low risk of bias/low concern regarding applicability; - and red colour indicates high risk of bias/high concern regarding applicability; ? and blue colour indicates unclear risk of bias/unclear concern regarding applicability; Bright colours pertain to the PROBAST domains, and dark colours pertain to the overall PROBAST assessments; ROB indicates risk of bias; TRIPOD indicates the percentage proportion of reported items recommended in reporting guidelines. ROB, risk of bias; TRIPOD, Transparent Reporting of a multivariable prediction model for Individual Prognosis or Diagnosis.

was complicated by a low response rate with four out of 30 study authors responding when contacted for clarification on study characteristics and data extraction items. Finally, outcome reporting bias assessments were not possible due to studies not referring to a preregistered protocol for their prognostic modelling study.

Applicability

Seven (23%) studies, with a total of 21 models, had low applicability concerns for the review question. Regarding participants, 17 (56.7%) studies were rated as having high or unclear applicability concerns for the review question. This concern was primarily due to restrictive eligibility criteria impeding generalisation to the general population of community dwellers. Restrictions were made by excluding participants with specific diseases or conditions that could increase the risk of falling, such as disability or impaired mobility. Furthermore, studies rated as having unclear applicability concerns did not sufficiently report whether the participants were community-dwellers or whether the setting was the general population rather than, for example, primary or secondary care. Regarding predictors, 28 (93.3%) studies had no concerns. The remaining two studies used specific laboratory measures which may be challenging to apply in a general population setting.^{25 45} Regarding applicability concerns for the outcome, 18 (60%) studies had no concerns since they reported using the falls definition of the review or similar.

DISCUSSION

The current systematic review found 72 prognostic models on falls risk with the area under the curve ranging from 0.49 to 0.87. All models had a high risk of bias mostly due to limitations in statistical methods and outcome assessments, combined with restrictive eligibility criteria. Thus, using the models in clinical practice would entail unreliable predictions. This review provides an extensive overview of prediction models for falls and information for future study methodology.

Strengths

The current review followed guidelines on prediction modelling reviews strictly for search strings,¹⁹ data extraction,¹⁸ risk of bias assessment,²² along with development^{12 18} and transparent reporting of the review.¹¹

Limitations

Review level

We excluded potentially eligible studies without full text (n=14) or published in other languages (n=7) during screening of titles and abstracts. These studies are listed in the data supplement. Furthermore, we excluded randomised controlled trials and retrospective cohort studies. Consequently, we were only able to include 0.25% (30/11 789) of studies screened even though other models, based on other study designs, may had been available. As prespecified in the study protocol, this exclusion

was chosen due to limitations with generalisability and missing data when developing or validating prediction models using these designs. Thus, this systematic review only provides an overview of models based on a specific study design, but we consider this exclusion of the other studies to be justified.

Study level

Limitations were found in the studies with a high risk of bias, poor quality of reporting, and finally, a low response rate when contacting authors for retrieval of missing data extraction items.

Risk of bias

We found a high risk of bias within all studies. Hence, the predictive performance may be low, and predictions unreliable when models are used in clinical practice. The bias ratings were primarily based on eligibility criteria, methods of outcome assessments, and statistical analysis. Building prediction models on selected subgroups of the target population can yield biased performance estimates when used in clinical practice on a different population.¹⁷ Thus, study eligibility criteria should be aligned with the research questions, that is, broad and with as few exclusion criteria as possible. In terms of outcome assessments, we found the definition of falls missing for one-third of studies along with varying falls recording methods. These findings are similar to results of a previous review on methodology in falls prevention trials, where only half of the studies provided a falls definition and recording methods varied highly.¹⁴ The problem with not defining a fall is that the notion of falls is taken for granted. As seen in our review, the prevalence of falls differed markedly between studies, which could be due to different understandings of the fall's definition. Consequently, falls become harder to predict¹⁷ while at the same time, comparing and combining studies in systematic reviews with meta-analyses becomes complicated. To address these issues, a common outcome data set on falls trials is available along with a falls definition and recommendations for falls recording methods.¹³ Finally, statistical analysis methods raised concerns for risk of bias. Primarily, this was due to the handling of missing data with most of the studies applying a complete-case analysis method. Significant limitations can arise from the exclusion of participants due to missing data, for example, on a single predictor among many, since otherwise useful predictors on each participant are lost. Consequently, this can lead to low sample sizes and biased model performances. In such cases, imputation methods have proved useful when dealing with missing data.¹⁷ Furthermore, for the majority of developed models, no internal validation procedures were applied. This shortcoming typically causes models' predictive performance to be optimistic.⁵⁴ Finally, the critical appraisal was compromised due to incomplete reporting. We believe that future studies and systematic reviews would benefit from adhering to reporting guidelines for prediction modelling studies.¹⁶



Implications for clinical practice

Only seven studies could address the review question appropriately, and all of these had a high risk of bias. Consequently, the evidence available to inform healthcare professionals is limited and, as mentioned, possibly biased. Thus, no model can currently be recommended for clinical practice.

Implications for research

We recognise that most studies (n=23/30) were conducted before the publishing of prediction modelling guidelines.^{16 22} Thus, with the benefit of hindsight, studies would be expected to have different shortcomings within their methods and reporting. On the other hand, this also supports the reason for publishing guidelines in the first place. Despite this, the included studies provide valuable information on future candidate predictors. Thus, selecting predictors for prediction models on non-statistical grounds, that is, based on literature and clinical knowledge, is commonly used to avoid predictor selection bias.⁵⁵ Therefore, future development studies may include the most frequently applied predictors found in this review. Lastly, it is essential to test the generalisability of developed models by performing validation studies to determine which models provide stable predictions across different populations.⁵⁶

CONCLUSIONS

There are several studies on falls prognostic models intended for a general population setting, but only a few are fully applicable to the heterogeneous population of community-dwelling older adults. Thus, the evidence available to address this is limited. From all included studies, we found an abundance of falls prognostic models available. However, the discriminatory performance of these varied and was only reported for half of the models. Each model had concerns regarding risk of bias mainly due to restrictive eligibility criteria along with methods of statistical analysis and outcome assessments. Consequently, this could give rise to unreliable predictions should the models be used in clinical practice. Future prognostic prediction models should comply with TRIPOD.

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Contributors GVG is the guarantor. GVG drafted the manuscript for the protocol and performed preliminary searches and search strategy. GVG, JRy, MGJ, TM, KT and SA developed selection criteria. JRi assisted GVG in screening titles, abstracts and reference lists of papers included after full text reading along with data extraction, assessing risk of bias, presence of meta-bias along with adherence to reporting guidelines. KT assisted GVG in full-text reading, and MGJ was arbitrator if agreement could not be reached between reviewers. GVG drafted the manuscript for the paper, while MGJ, JRy, SA, TM, JRi and KT assisted in the interpretation of results, read, provided feedback and approved the final manuscript of the paper. The corresponding author attests that all listed authors meet authorship criteria and that no others meeting the criteria have been omitted.

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Disclaimer The study did not involve participants for whom the study results can be disseminated. The authors intend to distribute the results of the study by engaging with local healthcare providers for the general population setting during 2020 and 2021, along with social media to reach a broader audience.

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Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement All data relevant to the study are included in the article or uploaded as online supplemental information. The study protocol is available online at https://www.crd.york.ac.uk/prospéro/display_record.php?RecordID=124021. All information extracted for the included studies in the review is available as a data supplement.

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Supplemental material

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Appendix 1: protocol for systematic review

Administrative information

Title:

Systematic review of prognostic models for predicting falls in community-dwelling older adults

Registration:

This protocol was registered with the International Prospective Register of Systematic Reviews (PROSPERO) on (1st February 2019).

Registration number: CRD42019124021

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Contributions:

GS is the guarantor. GS drafted the manuscript for the protocol and performed preliminary searches and search strategy. GS, JR, MGJ and SA developed selection criteria. JRI will assist GS in screening titles, abstracts and reference lists of papers included after full-text reading along with data extraction, assessing risk of bias, presence of meta-bias along with adherence to reporting guidelines. KT will assist GS in full-text reading. MGJ will be arbitrator if agreement cannot be reached between reviewers. GS will draft the manuscript for the paper. MGJ, JRY, SA, TM, JRI and KT will assist in interpretation of results, read, provide feedback and approve the final manuscript of the paper.

Amendments:

In the event of protocol amendments, this section will describe the date, changes and rationale of each amendment. Changes will be incorporated into the protocol sections. All authors will be responsible for approving the amendments. Also, GS will be responsible for documentation and implementation of these.

Current version of the protocol: 3.

- 7th of August 2019
 - o **Change #1:**
 - Setting:

- We further specified which setting the review is, and is not, intended for. We changed the wording “community setting” to “general population setting”. Also, we specified that prediction models intended for a primary care would also be excluded.
 - Rationale:
 - Change in wording: To apply the same terminology of the CHARMS checklist.
 - Primary care exclusion: To increase transparency and homogeneity in settings.
 - **Change #2:**
 - Risk of bias:
 - As a supplement to the risk of bias assessments, the newly published TRIPOD adherence tool will be used.
 - Rationale
 - To assess adherence to reporting guidelines for prediction modelling studies.
- 17th of June 2019
- **Change #1**
 - Study design:
 - We further specified which study designs would not be included. Thus, randomised controlled trials and retrospective cohort studies will not be included.
 - Rationale:
 - To increase transparency.
 - **Change #2:**
 - Participants: Age
 - We further specified the inclusion criterium regarding age. Thus, studies with total age ranges extending below 60 years will be excluded. Exclusion will also be made if mean age subtracted by two standard deviations extends below 60 years of age unless inclusion criterium in studies specifically states a lower age limit of 60 years or above.

- Rationale:
 - To increase transparency.
- **Change #3:**
 - Participants: Community-dwelling
 - We further specified which studies would be included. Thus, we will include studies excluding certain types of community-dwelling individuals, e.g. with known neurological, spinal or cognitive disorders.
 - Rationale:
 - These samples may also contribute with relevant information about the target population.
- **Change #4:**
 - Index (Model):
 - We further specified which studies to include based on the model presented. Thus, we will also include studies with:
 - Two or more prognostic factors combined into a scale giving an individual score used to assess the predictive performance on future falls.
 - Two or more prognostic factors included in a test instrument from which a prediction model would be generated.
 - Rationale:
 - To increase transparency.
- **Change #5:**
 - Outcome (and rationale):
 - We further specified which studies to include based on the outcome. Thus, studies without an outcome definition will also be included since this will not rule out the outcome definition of this review. We will exclude studies using falls definitions excluding certain types of falls presumed to be due to a specific cause e.g. acute medical events or external forces. This post fall classification method may introduce assessor-bias.

Support:

The Department of Geriatric Medicine, Aalborg University Hospital, Aalborg, Denmark and the Department of Clinical Medicine, Aalborg University, Aalborg, Denmark will fund and sponsor this research.

Introduction:**Rationale of the review**

Falling over in community-dwelling older adults is a frequent problem with an annual prevalence of 30 % in 65+ year olds and 50 % in 80+ year olds.¹ Total number of falls are expected to increase significantly in the future due to the ageing population.^{2,3} For instance, in 2017, the global population of 65+ year olds was estimated to be 962 million and is estimated to increase towards 1.4 and 2.1 billion in 2030 and 2050 respectively.² This frequent and escalating problem of fall accidents is a major concern globally due to their associations with elevated morbidity, mortality, poorer physical functioning and early admission to long-term care facilities which leads to elevated financial costs to society⁴⁻⁶.

Fall prevention is therefore highly relevant to society, next of kin and to the individual. Unfortunately, more than 400 risk factors for falling have been identified thereby making it a complex area/problem.⁷ In addition, the risk factors spread across different domains including socio-demographics, the environment, medical conditions and medications, physical performance, psychology and cognition⁸. In consequence, secondary multifactorial fall risk prevention has been recommended^{3,9}. On the other hand, if individuals at high risk of falling could be identified before their first fall, primary preventive interventions could be instituted, which would be even more beneficial. Therefore, individual assessments of fall risk using multifactorial prognostic prediction models are imperative. Few reviews on the ability of prognostic prediction model studies to discriminate fallers from non-fallers in community-dwelling older adults exist¹⁰⁻¹². However, in these reviews, methodologies were varied with no review protocols being reported¹⁰⁻¹², outcome definitions not following the current consensus definition¹⁰⁻¹³, and search strategies being restricted^{10,12} or based on search filters for diagnostic studies^{11,12}. Also, risk-of-bias assessments were done using tools designed for diagnostic studies^{11,12} and reporting of data extraction items and - methods were inconsistent^{10,12}.

Nonetheless, in recent years, prognostic research methods have evolved. Thus, new guidelines have been published to encourage researchers to transparently report prediction modelling studies¹⁴, systematic reviews¹⁵ and their respective protocols¹⁶. Also, within the field of prediction modelling reviews, literature search strategies¹⁷ along with guidance papers on data extraction items¹⁸ and risk

of bias tools¹⁹ have been developed. However, no reviews on fall prediction studies have applied the abovementioned guidelines as yet.

The scope of this review is to provide a systematic update on current model performance, and other characteristics, on developmental and validation studies within the field of fall accidents on multifactorial prognostic prediction models in community-dwelling older adults.

Objective:

The aim of this systematic review is to describe model performance along with other model characteristics (predictors along with methods of model development, -evaluation and -presentation) of existing multifactorial prognostic prediction models on falls in 60+ year old non-institutionalised, community-dwelling older adults.

Methods:

This protocol follows the guidelines of the Preferred Reporting Items for Systematic reviews and Meta-analyses Protocols (PRISMA-P)¹⁶. The protocol is registered in the PROSPERO database.

Eligibility Criteria

The following criteria outlined below will be used to select studies for the review.

Study designs:

We will only include prospective cohort studies since this is the preferred design for prognostic prediction modelling studies¹⁴. We will include both developmental and validation studies with and without model updating. Randomised controlled trials will not be included since these tend to have narrow predictor distributions resulting in poor discriminatory performance. This may also be influenced by treatment effects in the design¹⁸. Furthermore, generalisation to the target population may be compromised due to strict eligibility criteria²⁰. Retrospective cohort studies will be excluded since the predictive performance may be substantially limited by missing data, and only predictors available in the data set collected can be applied¹⁸.

Participants:

Only studies with all participants aged 60 years or older will be included. This cut-off was chosen in order to encompass studies using different age cut-offs for being an older adult. Thus, studies with total age ranges extending below 60 years will be excluded. Also, mean age subtracted by 2 standard deviations must not extend below 60 years unless inclusion criteria specifically stated a lower age limit of 60 years or above.

Participants should be community-dwelling and not institutionalised, i.e. living independently and not in nursing homes or short term-care where the risk of falling is substantially different from

the general population²¹. Studies restricted to participants with pre-specified diseases, conditions or symptoms such as Parkinsonism or stroke will be excluded so that generalisation to the overall community population is not compromised. We will include studies excluding certain types of community-dwelling individuals, e.g. with known neurological, spinal or cognitive disorders since these samples may contribute with relevant information about the target population of the review.

Index (Model):

Multifactorial prognostic prediction models, i.e. including 2 prognostic factors or more due the multifactorial aetiology of falls^{3,22}. Thus, explanatory studies investigating the association between a predictor and prospective falls were excluded. To broaden the search, we will include the following studies with:

- Two or more prognostic factors measuring on the same domain will be included.
- Two or more prognostic factors combined into a scale giving an individual score used to assess the predictive performance on future falls.
- Two or more prognostic factors included in a test instrument from which a prediction model would be generated.

Comparator:

None.

Outcome:

Primary outcome in the included prospective cohort studies will be falls defined by “an unexpected event in which the participants come to rest on the ground, floor, or lower level”.¹³ Both single and recurrent falls, i.e. >1 fall, will be included. Studies without an outcome definition were also included since this would not rule out the abovementioned definition. We excluded studies using falls definitions excluding certain types of falls presumed to be due to a specific cause e.g. acute medical events or external forces. This post fall classification method may introduce bias in the outcome assessment due to the subjective judgements involved²³.

Timing:

No restrictions on follow-up on falls will be made.

Setting:

The models should be used to screen for risk of prospective falls in a general population setting, and we will exclude models intended for primary care, hospitals and nursing homes.

Language:

Only studies reported in an English, Danish, Norwegian or Swedish language will be included. This was chosen due to resource limitations. However, a list of possibly relevant studies in other languages found during the literature search will be included in an appendix.

Publication year:

No restrictions on publication year will be made.

Information sources

Studies will be collected from the following databases: Pubmed.gov (PubMed interface, inception date to date of search), EMBASE (Embase.com, inception date to date of search), CINAHL (EBSCOhost interface, inception date to date of search), The Cochrane Library (Wiley interface, inception date to date of search), PsycINFO (APA PsycNET interface, inception date to date of search) and Web of Science (Web of Science Core Collection, inception date to date of search). Both controlled terms (i.e. MeSH or Emtree terms) and simple phrase terms will be used to search the databases when appropriate. Also, hand searches from the reference lists of the included studies will be performed. Conference abstracts found during the literature search will only be used for obtaining their respective full-text articles. If not found elsewhere, we will try to contact the respective authors for this. If the full-text articles are not obtainable, the study will be excluded. However, a list of these possibly relevant studies found during the literature search will be included in an appendix. Primary literature within prior systematic reviews on fall prediction models found during the literature search will be screened. Finally, two experts in the field of falls research will be consulted to enquire for knowledge on additional studies fulfilling the eligibility criteria of this systematic review.

Grey literature

PROSPERO will be searched for completed reviews with this focus. Also, Clinicaltrials.gov, WHO International Clinical Trials Registry Platform, Open Grey, GIN, NICE, CRD/HTA, SIGN will be searched for relevant studies using key-terms from the main search (falling AND elderly OR Older adults). If not found elsewhere, we will try to contact authors of these relevant studies for retrieving of the full-text.

Search strategy

The search strategy follows current Cochrane recommendations for systematic reviews on prediction models^{17,24}. Also, to accommodate the search strategy to our eligibility criteria, the search string was further developed by GS in collaboration with a Health Sciences Librarian at the Medical Library of Aalborg University Hospital, Denmark. The search strategies of the selected databases are included in Appendix 1. The final search strategy will be approved by a second reviewer (KT).

Study records:**Data management:**

Duplicates will be removed using EndNote (EndNote X9, Clarivate Analytics, Philadelphia, USA). The results of the literature search will be uploaded to Covidence (Covidence systematic review software, Veritas Health Innovation, Melbourne, Australia. Available at www.covidence.org) to ease the collaboration between reviewers on titles and abstracts screening along with full-text reading. Risk of bias assessments and extraction of data will be performed using a standardised form in REDCap using a double data-entry module²⁵. If several articles report results from the same trial, the “primary publication” will be prioritized; i.e. typically defined as the first full-text publication reporting on the primary outcome.

Selection process:*Screening titles and abstracts:*

Two reviewers (GS and JRI) will independently screen titles and abstracts from the inclusion criteria. The screening process of titles and abstracts will undergo pilot testing. Reviewers (GS and JRI) will meet and discuss the inclusion of the first 50 articles found by the search strategy during screening of titles and abstracts. If agreement cannot be reached, a third author (MGJ) will be consulted for arbitration. If needed afterwards, refinement of inclusion criteria will be performed.

Full-text reading

Full-text reports will be obtained on eligible studies, and studies where uncertainty exists regarding eligibility based on titles and abstracts. GS and KT will independently screen the full-text reports for a final decision on eligibility. Disagreement among the reviewers will be discussed. If agreement cannot be reached, a third author (MGJ) will be consulted for arbitration. Reasons for excluding studies after full-text reading will be provided.

Data collection process:

Two reviewers (GS and JRI) will independently extract data from a pre-specified form (see Data items) in REDCap from each study found eligible for inclusion after full-text reading. If data reporting is incomplete, we will try to contact authors of the relevant studies to obtain data. A maximum of two attempts will be done to contact the authors by e-mail. If e-mails are not responded within 1 month from the first e-mail sent, the data field will be labelled as having no information. If the authors do not gain access to data, these will be extracted from figures and graphs if possible. If companion studies (multiple reports of the same study) with the same outcome of falls is found, data will be

extracted from the primary publication of the study. Disagreement among the reviewers will be discussed. If agreement cannot be reached, a third author (MGJ) will be consulted for arbitration. The total number of times arbitration by a third author was required will be given.

Data items:

Data extraction will comply with Critical Appraisal and Data Extraction for Systematic Reviews of Prediction Modelling Studies (CHARMS) guidelines.¹⁸ The following data will be extracted if possible:

- General study information:
 - Authors.
 - Year of publication.
 - Study design.
 - Type of prediction modelling study:
 - Developmental without external validation.
 - Developmental with external validation.
 - External model validation without model updating.
 - External model validation with model updating.
 - Others
 - Country of origin.
 - Setting where candidate predictors were measured.
 - Number of study centres.
 - Inclusion criteria.
 - Exclusion criteria.
 - Sample size.
 - Methods for participant recruitment/sampling:
 - Consecutive sampling.
 - Convenience sampling.
 - Probability sampling.
 - Others
 - Dates of participant recruitment.
 - Duration of follow-up.
 - How many participants completed follow-up percentage-wise?
- Participants:

- Gender.
- Age.
- Fall history.
- Outcome:
 - Outcome definition.
 - Was it pre-specified?
 - Type of fall recording/method of outcome measurement.
 - Was the same outcome definition and recording method used in all participants (Yes/No/Not Available)?
 - Was the outcome assessor blinded towards predictors (Yes/No/Not Available)?
 - Number of falls.
 - Number of fallers.
 - Number of non-fallers.
 - Number of frequent fallers.
 - Fall-rate per person per year.
 - Summary of follow-up period.
- Candidate predictors:
 - Number of candidate predictors studied.
 - Definitions of candidate predictors.
 - Methods for measuring candidate predictors.
 - Number of outcomes (falls) in relation to number of candidate predictors (events per variable (EPV)).
- Missing data:
 - Number of participants with missing data (both predictors and outcomes) in total.
 - Did participants with missing data differ from those without missing data (Yes/No/Not Available)?
 - Number of participants with missing data in total for each predictor
 - Method of handling missing data.
 - Single imputation
 - Multiple imputation
 - Participants with missing data were excluded from the analysis (complete case analysis)

- Others (comment).
 - Were participants with missing data included in the model development, validation or updating (Yes/No/Not Available)?
- Model development (not relevant if the prediction modelling study does not include model development):
 - Type of model:
 - Linear regression
 - Logistic regression.
 - Survival analysis.
 - Others (comment).
 - Were assumptions for the model checked (Yes/No/Not available)?
 - Were assumptions for the model satisfied (Yes/No/Not available)?
 - Predictor selection methods for inclusion into the multivariable analysis:
 - All predictors were predetermined to be included in the analysis
 - Predictors were selected for inclusion based on univariate associations with the outcome
 - Others
 - Did any statistical transformation of candidate predictors occur (i.e. dichotomising a continuous or categorical variable) prior to inclusion in the multivariate modelling process (Yes/No/Not Available)?
 - If YES, what transformation procedure was applied?
 - Predictor selection methods during the multivariable modelling:
 - Full model approach (all predictors were predefined for the final model and no predictors were omitted).
 - Forward selection (candidate predictors were selected based on pre-specified criteria).
 - If forward selection was applied, which criteria/significance level were used?
 - P-value
 - Akaike's Information Criteria
 - R²
 - Others

- Backward elimination (all candidate predictors started in the model and were removed or kept based on a pre-specified criterion)
 - If backward elimination was applied, which criteria/ significance level were used?
 - P-value
 - Akaike's Information Criteria
 - R²
 - Others
 - Were shrinkage techniques applied (Yes/No/Not available)?
 - If YES, which procedure was applied?
- Model performance:
 - Overall measures of model performance
 - R²
 - Brier Score
 - Discrimination:
 - Area Under Curve/*c*-statistic
 - D-statistic
 - Others
 - Calibration:
 - Calibration plot
 - Calibration intercept and slope
 - Calibration table
 - Hosmer-Lemeshow test
 - Observed:Expected Ratio
 - Others.
 - Classification:
 - Sensitivity
 - Specificity
 - Positive Predictive Value
 - Negative Predictive Value
 - Net reclassification index
 - Others

- Was the cut-point:
 - Predefined/made a priori?
 - Derived from the dataset?
- Model evaluation:
 - **External validation:** Were the model performance measures based on separate external data (Y/N/NA)?
 - If YES, how was the dataset different from the developmental dataset:
 - Temporal/differed in time
 - Different geographical location
 - Different setting
 - Different investigator
 - Others
 - **Internal validation:** Were the model performance measures based on the developmental dataset (Y/N/NA)?
 - Which approach was chosen to evaluate model performance?
 - Split-sample validation
 - What was the percentage-wise allocation of participants?
 - Was the split random to model development and validation(Y/N/NA)?
 - Cross-validation
 - How many subsets were chosen?
 - Bootstrap validation
 - Jack-knife resampling
 - Others
 - None
- Model presentation:
 - What format did the study present their model in to permit calculations of individual risks?
 - Regression formula (comment)
 - Rounded scoring rules (comment)
 - Predefined risk groups (comment)

- Were the risk-groups:
 - Predefined/made a priori?
 - Derived from the dataset?
 - Nomogram
 - Score chart
 - Others
 - None
- Sources of funding in the individual study.

Outcomes and prioritisation

Main outcomes:

The main outcome of this systematic review is to describe model performance. Secondary outcomes are to describe the following characteristics: Study setup, participants, final model predictors, outcomes together with model development, -evaluation and -presentation.

Risk of bias

The Prediction study Risk Of Bias Assessment Tool (PROBAST)¹⁹ will be applied for risk of bias assessment. Two reviewers (GS and JRI both with no prior experience in risk of bias assessments) will independently assess for risk of bias. These will not be blinded to study titles or authors. If reporting is incomplete in order to make a complete assessment, we will try to contact authors of the concerned study. A maximum of two attempts will be done to contact the authors by e-mail. If e-mails are not responded within 1 month from the first e-mail sent, the data field will be labelled as “Unclear”. Disagreement among the reviewers will be discussed. If agreement still is not reached, a third author (MGJ) will be consulted for arbitration. The total number of times arbitration by a third author was required will be given. Each domain rating will be reported instead of a summative score of all domains. Previously, one review on fall prediction models assessed reporting in included studies to be poor¹². However, no standardised method of evaluating reporting in studies was reported. Thus, as a supplement to the risk of bias assessments, the newly published TRIPOD adherence tool²⁶ will be used to assess adherence to reporting guidelines for prediction modelling studies.

Data synthesis

Meta-analysis will not be considered due to this systematic review merely being descriptive. In the qualitative synthesis, information will be presented in text, figures, and tables of the included studies. Reporting of studies will be presented in tables by their publication year. Final model predictors will be presented in main categories in a figure.

Meta-bias

Presence of outcome reporting bias will be investigated by comparing the studies with their respective protocol if available. The following aspects will be considered:

- Was publication of the protocol done before recruitment of patients?
- Was the intended outcome in the protocol the same in the published study?

Confidence in cumulative estimate

Assessment of strength of evidence will be made using the PROBAST tool.

References

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Appendix 2: PRISMA checklist

See tables on the next page. Fields pertaining to meta-analyses have been labelled as not available (NA) since meta-analyses was not performed.

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	#2
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	#4
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	#6
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	#6
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	#6
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	#6-8
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	#8
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	#8 + Appendix 3
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	#8-9 + Appendix 4
Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	#9
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	#9 + Appendix 5
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	#9-10
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	#10

Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	NA
Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	#10
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	NA
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	#10 + Fig 1 + Appendix 6-8
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	#10-12 + Fig 2 + Appendix 9-10
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	#12 + Table 1
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	#12
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	NA
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	#12
Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	NA
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	#12-13
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	#13
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	#13-15
FUNDING			

Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	#10
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Appendix 3: search strategy

Pubmed.gov

(((((home-dwell*[tw] OR "Independent Living"[Mesh] OR Independent*[tw] OR community-dwell*[tw] OR home-based*[tw] OR community-living*[tw]))))

AND ("Aged"[Mesh] OR aged[tw] OR senior*[tw] OR elder*[tw] OR old[tw] OR older[tw])) AND ("Accidental Falls"[Mesh] OR fall*[Text Word]))

AND (((Validat*[tw] OR Predict*[tw] OR Rule*[tw]) OR (Predict*[tw] AND (Outcome*[tw] OR Risk*[tw] OR Model*[tw])) OR ((History[tw] OR Variable*[tw] OR Criteria [tw]OR Scor*[tw] OR Characteristic*[tw] OR Finding*[tw] OR Factor*[tw]) AND (Predict*[tw] OR Model*[tw] OR Decision*[tw] OR Identif*[tw] OR Prognos*[tw])) OR (Decision*[tw] AND (Model*[tw] OR Clinical*[tw] OR "Logistic Models"[MESH])) OR (Prognostic[tw] AND (History[tw] OR Variable*[tw] OR Criteria[tw] OR Scor*[tw] OR Characteristic*[tw] OR Finding*[tw] OR Factor*[tw] OR Model*[tw]))) OR (((((((((((("ROC Curve"[Mesh] OR stratificat*[tw] OR discriminat*[tw]) OR c statistic*[tw]) OR Area under the curve*[tw]) OR AUC[tw]) OR Calibrat*[tw]) OR Indices[tw]) OR Algorithm*[tw]) OR Multivariable*[tw])) OR ((Predict*[tw] OR Predictive value of tests[mh] OR Scor*[tw] OR Observ*[tw] OR Observer variation[mh])))

Embase:

('falling'/exp OR fall*:ti,ab,kw)

AND ('aged'/exp OR aged:ti,ab,kw OR senior*:ti,ab,kw OR elder*:ti,ab,kw OR old:ti,ab,kw OR older:ti,ab,kw)

AND (validat* OR rule* OR (predict* AND (outcome* OR risk* OR model*)) OR ((history OR variable* OR criteria OR scor* OR characteristic* OR finding* OR factor*))

AND (predict* OR model* OR decision* OR identif* OR prognos*) OR (decision* AND (model* OR clinical* OR 'statistical model'/exp)) OR (prognostic AND (history OR variable* OR criteria OR scor* OR characteristic* OR finding* OR factor* OR model*)) OR 'receiver operating characteristic'/exp OR stratificat* OR discriminat* OR 'c statistic*' OR 'area under the curve*' OR auc OR calibrat* OR indices OR algorithm* OR multivariable* OR predict* OR 'predictive value'/exp OR scor* OR observ* OR 'observer variation'/exp) AND ('community living'/exp OR 'at home':ti,ab,kw OR (((community OR home OR independent*) NEAR/3 (dwell* OR based OR live OR living)):ti,ab,kw) OR 'home accident'/exp OR 'community dwelling person'/exp)

CINAHL:

((MH "Community Living") OR (MH "Assisted Living") OR ((community OR home OR independent*) N3 (dwell* OR based OR live OR living)) OR (MH "Accidents, Home") OR at home) AND ((MH "Accidental Falls") OR fall*)

AND ((MH "Aged") OR (MH "Aged, 80 and Over") OR (MH "Frail Elderly") OR aged OR senior* OR elder* OR old OR older)

AND (validat* OR rule* OR (predict* AND (outcome* OR risk* OR model*)) OR ((history OR variable* OR criteria OR scor* OR characteristic* OR finding* OR factor*) AND (predict* OR model* OR decision* OR identif* OR prognos*)) OR (decision* AND (model* OR clinical* OR (MH "Models, Statistical"))) OR (prognostic AND (history OR variable* OR criteria OR scor* OR characteristic* OR finding* OR factor* OR model*)) OR (MH "ROC Curve") OR stratificat* OR discriminat* OR 'c statistic*' OR 'area under the curve*' OR auc OR calibrat* OR indices OR algorithm* OR multivariable* OR predict* OR (MH "Predictive Value of Tests") OR scor* OR observ*)

Psycinfo

<http://psycnet.apa.org.auh.aub.aau.dk/permalink/19512998-9a97-e90a-722c-bd157326fa55>

((Any Field: (validat*) OR Any Field: (rule*) OR (Any Field: (predict*) AND (Any Field: (outcome*) OR Any Field: (risk*) OR Any Field: (model*))) OR ((Any Field: (history) OR Any Field: (variable*) OR Any Field: (criteria) OR Any Field: (scor*) OR Any Field: (characteristic*) OR Any Field: (finding*) OR Any Field: (factor*)) AND (Any Field: (predict*) OR Any Field: (model*) OR Any Field: (decision*) OR Any Field: (identif*) OR Any Field: (prognos*))) OR (Any Field: (decision*) AND (Any Field: (model*) OR Any Field: (clinical*))) OR (Any Field: (prognostic) AND (Any Field: (history) OR Any Field: (variable*) OR Any Field: (criteria) OR Any Field: (scor*) OR Any Field: (characteristic*) OR Any Field: (finding*) OR Any Field: (factor*) OR Any Field: (model*))) OR Any Field: (stratificat*) OR Any Field: (discriminat*) OR Any Field: ('c statistic*') OR Any Field: ('area under the curve*') OR Any Field: (ROC) OR Any Field: (auc) OR Any Field: (calibrat*) OR Any Field: (indices) OR Any Field: (algorithm*) OR Any Field: (multivariable*) OR Any Field: (predict*) OR Any Field: (scor*) OR Any Field: (observ*)))

AND ((((((Any Field: ('at home')) OR (((Any Field: (community))) OR ((Any Field: (home))) OR ((Any Field: (independent*)))) NEAR/3 (((Any Field: (dwell*)) OR ((Any Field: (based))) OR ((Any Field: (live))) OR ((Any Field: (living))))))))) OR (((IndexTermsFilt: ("Home Accidents")))))

AND (((Any Field: (aged))) OR ((Any Field: (elder*))) OR ((Any Field: (old))) OR ((Any Field: (older))) OR ((Any Field: (senior*))))

AND (((IndexTermsFilt: ("Falls")))) OR ((Any Field: (fall*))))

Cochrane Library:

ID Search

- #1 MeSH descriptor: [Accidental Falls] explode all trees
 #2 fall*:ti,ab,kw
 #3 #1 OR #2
 #4 MeSH descriptor: [Aged] explode all trees
 #5 aged:ti,ab,kw
 #6 senior*:ti,ab,kw
 #7 elder*:ti,ab,kw
 #8 old:ti,ab,kw
 #9 older:ti,ab,kw
 #10 #4 OR #5 OR #6 OR #7 OR #8 OR #9
 #11 MeSH descriptor: [Independent Living] this term only
 #12 "at home":ti,ab,kw
 #13 MeSH descriptor: [Accidents, Home] explode all trees
 #14 #3 OR #13
 #15 (((community OR home OR independent*) NEAR/3 (dwell* OR based OR live OR living)):ti,ab,kw)
 #16 #11 OR #12 OR #13 OR #15
 #17 #14 AND #16 AND #10
 #18 MeSH descriptor: [Logistic Models] explode all trees
 #19 MeSH descriptor: [ROC Curve] explode all trees
 #20 MeSH descriptor: [Predictive Value of Tests] explode all trees
 #21 MeSH descriptor: [Observer Variation] explode all trees
 #22 (((Validat* OR Predict*:ti OR Rule*) OR (Predict* AND (Outcome* OR Risk* OR Model*)) OR ((History OR Variable* OR Criteria OR Scor* OR Characteristic* OR Finding* OR Factor*) AND (Predict* OR Model* OR Decision* OR Identif* OR Prognos*)) OR (Decision* AND (Model* OR Clinical* OR #18)) OR (Prognostic AND (History OR Variable* OR Criteria OR Scor* OR Characteristic* OR Finding* OR Factor* OR Model*))) OR (((((((((((#19) OR stratificat*) OR discriminat*) OR c statistic*) OR Area under the curve*) OR AUC) OR Calibrat*) OR Indices) OR Algorithm*) OR Multivariable*)) OR ((Predict* OR #20 OR Scor* OR Observ* OR #21)))
 #23 #17 AND #22

Web of Science:

- #1 ts=fall*
 #2 ts=(aged OR senior* OR elder* OR old OR older)
 #3 ts=((validat* OR rule* OR (predict* AND (outcome* OR risk* OR model*)) OR ((history OR variable* OR criteria OR scor* OR characteristic* OR finding* OR factor*) AND (predict* OR model* OR decision* OR identif* OR prognos*)) OR (decision* AND (model* OR clinical* OR "statistical model"))) OR (prognostic AND (history OR variable* OR criteria OR scor* OR characteristic* OR finding* OR

factor* OR model*)) OR ("receiver operating characteristic" OR stratificat* OR discriminat* OR "c statistic" OR "area under the curve"
OR auc OR calibrat* OR indices OR algorithm* OR multivariable* OR predict* OR "predictive value" OR scor* OR observ* OR "observer
variation"))
#4 ts=("community living" OR "at home" OR ((community OR home OR independent*) NEAR/3 (dwell* OR based OR live OR living))
OR "home accident" OR "community dwelling person")
#4 AND #3 AND #2 AND #1

PROSPERO:

<https://www.crd.york.ac.uk/prospero>

Clinicaltrials.gov:

<https://clinicaltrials.gov/ct2/results?cond=falling+and+elderly+or+older+adults&term=&cntry=&state=&city=&dist=>

WHO International Clinical Trials Registry Platform:

<http://apps.who.int/trialsearch/>

Open Grey:

<http://www.opengrey.eu/search/request?q=falling+AND+Elderly+OR+Older+adults>

GIN:

https://www.g-i-n.net/library/international-guidelines-library/international-guidelines-library/@@guideline_search_results?basic-searchable-text=falling+and+elderly+or+older+adults&type=basic&action=Search&advanced-authors=&diseases=&meshterm=&search=

NICE:

<https://www.nice.org.uk/Search?q=falling+AND+Elderly+OR+Older+adults>

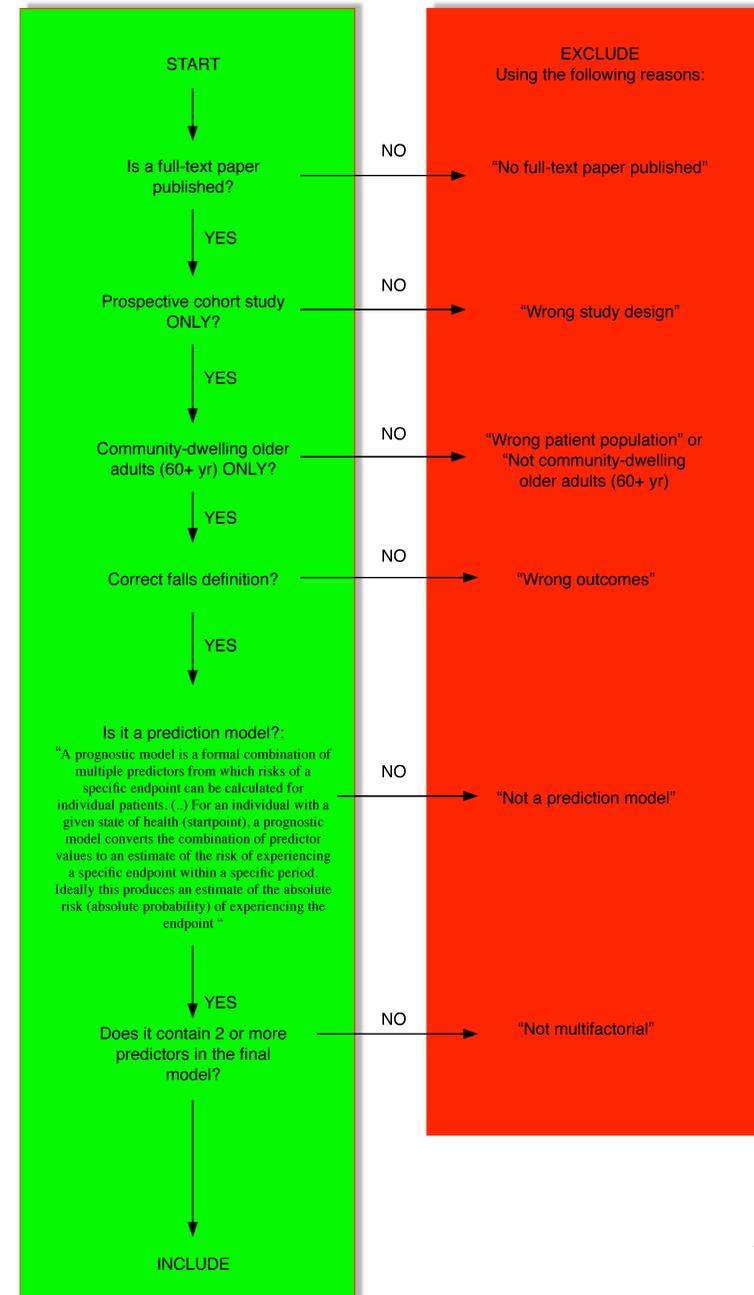
CRD/HTA:

<https://www.crd.york.ac.uk/CRDWeb/>

SIGN:

<https://www.sign.ac.uk/our-guidelines.html>

Appendix 4: prioritised list for exclusion reasons



Appendix 5: data extraction items

- General study information:
 - Authors
 - Year of publication
 - Study design
 - Type of prediction modelling study:
 - Developmental without external validation
 - Developmental with external validation
 - External model validation without model updating
 - External model validation with model updating
 - Others
 - Country of origin
 - Setting where candidate predictors were measured
 - Number of study centres
 - Inclusion criteria
 - Exclusion criteria
 - Sample size
 - Methods for participant recruitment/sampling:
 - Consecutive sampling
 - Convenience sampling
 - Probability sampling
 - Others

- Dates of participant recruitment
- Duration of follow-up
- How many participants completed follow-up percentage-wise?
- Participants:
 - Gender
 - Age
 - Fall history
- Outcome:
 - Outcome definition
 - Was it pre-specified?
 - Type of fall recording/method of outcome measurement
 - Was the same outcome definition and recording method used in all participants (Yes/No/Not Available)?
 - Was the outcome assessor blinded towards predictors (Yes/No/Not Available)?
 - Number of falls
 - Number of fallers
 - Number of non-fallers
 - Number of frequent fallers
 - Fall-rate per person per year
 - Summary of follow-up period
- Candidate predictors:
 - Number of candidate predictors studied
 - Definitions of candidate predictors
 - Methods for measuring candidate predictors

- Number of outcomes (falls) in relation to number of candidate predictors (events per variable (EPV))
- Missing data:
 - Number of participants with missing data (both predictors and outcomes) in total
 - Did participants with missing data differ from those without missing data (Yes/No/Not Available)?
 - Number of participants with missing data in total for each predictor
 - Method of handling missing data
 - Single imputation
 - Multiple imputation
 - Participants with missing data were excluded from the analysis (complete case analysis)
 - Others (comment)
 - Were participants with missing data included in the model development, validation or updating (Yes/No/Not Available)?
- Model development (not relevant if the prediction modelling study does not include model development):
 - Type of model:
 - Linear regression
 - Logistic regression
 - Survival analysis
 - Others (comment)
 - Were assumptions for the model checked (Yes/No/Not available)?
 - Were assumptions for the model satisfied (Yes/No/Not available)?
 - Predictor selection methods for inclusion into the multivariable analysis:
 - All predictors were predetermined to be included in the analysis
 - Predictors were selected for inclusion based on univariate associations with the outcome
 - Others

- Did any statistical transformation of candidate predictors occur (i.e. dichotomising a continuous or categorical variable) prior to inclusion in the multivariate modelling process (Yes/No/Not Available)?
 - If YES, what transformation procedure was applied?
- Predictor selection methods during the multivariable modelling:
 - Full model approach (all predictors were predefined for the final model and no predictors were omitted)
 - Forward selection (candidate predictors were selected based on pre-specified criteria)
 - If forward selection was applied, which criteria/significance level were used?
 - P-value
 - Akaike's Information Criteria
 - R^2
 - Others
 - Backward elimination (all candidate predictors started in the model and were removed or kept based on a pre-specified criterion)
 - If backward elimination was applied, which criteria/ significance level were used?
 - P-value
 - Akaike's Information Criteria
 - R^2
 - Others
- Were shrinkage techniques applied (Yes/No/Not available)?
 - If YES, which procedure was applied?
- Model performance:
 - Overall measures of model performance
 - R^2

- Brier Score
- Discrimination:
 - Area Under Curve/*c*-statistic
 - D-statistic
 - Others
- Calibration:
 - Calibration plot
 - Calibration intercept and slope
 - Calibration table
 - Hosmer-Lemeshow test
 - Observed:Expected Ratio
 - Others
- Classification:
 - Sensitivity
 - Specificity
 - Positive Predictive Value
 - Negative Predictive Value
 - Net reclassification index
 - Others
 - Was the cut-point:
 - Predefined/made a priori?
 - Derived from the dataset?
- Model evaluation:

- **External validation:** Were the model performance measures based on separate external data (Y/N/NA)?
 - If YES, how was the dataset different from the developmental dataset:
 - Temporal/differed in time
 - Different geographical location
 - Different setting
 - Different investigator
 - Others
- **Internal validation:** Were the model performance measures based on the developmental dataset (Y/N/NA)?
 - Which approach was chosen to evaluate model performance?
 - Split-sample validation
 - What was the percentage-wise allocation of participants?
 - Was the split random to model development and validation(Y/N/NA)?
 - Cross-validation
 - How many subsets were chosen?
 - Bootstrap validation
 - Jack-knife resampling
 - Others
 - None
- Model presentation:
 - What format did the study present their model in to permit calculations of individual risks?
 - Regression formula (comment)
 - Rounded scoring rules (comment)
 - Predefined risk groups (comment)

- Were the risk-groups:
 - Predefined/made a priori?
 - Derived from the dataset?
- Nomogram
- Score chart
- Others
- None
- Sources of funding in the individual study

We used the following definitions of developmental studies and validation studies:

- Developmental study: “Model development studies aim to derive a prediction model by selecting predictors and combining them into a multivariable model”[1].
- Validation study: A fully specified existing prognostic model including both predictors and their coefficients [2].
 - Studies with prespecified predictors, but without any coefficients were classified as developmental studies.

- 1 Collins GS, Reitsma JB, Altman DG, *et al.* Transparent reporting of a multivariable prediction model for individual prognosis or diagnosis (TRIPOD): the TRIPOD Statement. *BMC Med* 2015;**13**:1. doi:10.1186/s12916-014-0241-z
- 2 Altman DG, Vergouwe Y, Royston P, *et al.* Prognosis and prognostic research: Validating a prognostic model. *BMJ* 2009;**338**:1432–5. doi:10.1136/bmj.b605

Appendix 6: studies excluded during screening of titles and abstracts:

See separate PDF file: "Appendix 6".

Appendix 7: possibly relevant studies in other languages excluded during screening of titles and abstract:

Title	Author	Year	Language:	Reference:
Fall Prediction Model for Community-dwelling Elders based on Gender	Eun Suk, Yun	2012	Korean	J Korean Acad Nurs. 2012;42(6):810-818. doi:10.4040/jkan.2012.42.6.810
Fall risk and fracture. Aging and fall/fracture	Kozaki, K.	2013	Japanese	Clin Calcium. 2013;23(5):653-660
Fall risk assessment in regular exercising elderly women	Kikuchi, R.; Kozaki, K.; Kawashima, Y.; Iwata, A.; Hasegawa, H.; Igata, A.; Toba, K.	2008	Japanese	Nihon Ronen Igakkai Zasshi. 2008;45(5):526-531. doi:10.3143/geriatrics.45.526
Risk profiles and preventive measures of falls in elderly persons	Tromp, E	2002	Dutch	Tijdschr Gerontol Geriatr. 2002;33(1):21-25.
Fall-related factors in a cohort of elderly community residents	Rodriguez Perracini, M.; Ramos, L. R.	2002	Spanish	Rev Saude Publica. 2002;36(6):709-716. doi:10.1590/s0034-89102002000700008
Identifying the elderly at risk for falling and accompanying protocols	Galinsky, D.; Fried, V.; Biderman, A.; Cwikel, J.; Ben Moshe, Y.	2000	Hebrew	Harefuah. 2000;138(3):189-271.
Impact of fall risk and fear of falling on mobility of independently living senior citizens transitioning to frailty: Screening results concerning fallprevention in the community	Anders, J.; Dapp, U.; Laub, S.; Von Renteln-Kruse, W.	2007	German	Z Gerontol Geriatr. 2007;40(4):255-267. doi:10.1007/s00391-007-0473-z

Appendix 8: studies excluded during full-text screening.

See separate PDF file: "Appendix 8".

Appendix 9: supplementary table 1 with characteristics of included studies

Supplementary Table 1 Characteristics of included studies

First author, year, country, study type	Study characteristics (sample size, age distribution, % female, % of sample with prior falls)	Outcomes (n; %) and length of follow-up	Statistical model and validation technique	Final models and their presentation (model no. (outcome): predictors with/without weights)	Model performance
Maki et al. [1], 1994, Canada Development study	n = 100 Age, mean (SD): 83 (6) years Female: 83% Prior falls: 46.8%	Any falls (59; 59%) Recurrent falls (23; 23%) Follow-up: 12 months	Logistic regression Cross-validation (n-1)	Model 1 (any falls): Spontaneous mediolateral sway (root-mean-square) with eyes blindfolded; induced sway in anterior-posterior direction with eyes open (mean COP location / length of base-of-support) Model 2 (recurrent falls): Induced sway in mediolateral direction with eyes blindfolded (mean coherence of the input-output model); induced sway in mediolateral direction with eyes blindfolded (Relative COP overshoot in the predicted transient response)	Model 1: AUC (SE): 0.76 (0.05) Calibration: no information SN: 78% (43/55) SP: 50% (18/36) Model 2: AUC (SE): 0.87 (0.05) Calibration: no information SN: 53% (9/17) SP: 89% (31/35)
Brauer et al. [2], 2000, Australia Developmental study	n = 100 Age, mean (SD): 71 (5) years Female: 100% Prior falls: 35%	Any falls (35; 35%) Follow-up: 6 months	Logistic regression Cross-validation (no information on subsets)	Model 1 (any falls): Gluteus medius onset time; Movement time in a high preparation step task; Step time in a high preparation step task; Maximum COP excursion when moving to the right LOS; COP maximum mediolateral velocity; Total distance moved in quiet stance Model 2 (any falls): Movement time in a high preparation step task; step time in a high preparation step task; total time in a high preparation step task; movement time in a neutral preparation step task; step time in a neutral preparation step task; total time in a neutral preparation step task Model 3 (any falls): Gluteus medius in a neutral preparation step task; tensor fascia latae in a neutral preparation step task; hip adductors in a neutral preparation step task; gastrocnemius onset times in a neutral preparation step task; gluteus medius in a high preparation step task; tensor fascia latae in a high preparation step task; hip adductors in a high	Model 1: AUC: no information Calibration: no information SN: 51% SP: 91% Total predictive ability: 77% Model 2: AUC: no information Calibration: no information SN: 34% SP: 89% Total predictive ability: 70% Model 3: AUC: no information Calibration: no information SN: 23% SP: 88% Total predictive ability: 65%

				<p>preparation step task; gastrocnemius onset times in a high preparation step task</p> <p>Model 4 (any falls): COP maximum mediolateral velocity with eyes open; COP maximum mediolateral velocity with eyes closed; COP position in quiet stance with eyes open; COP position in quiet stance with eyes closed; COP total distance moved in quiet stance with eyes open; COP total distance moved in quiet stance with eyes closed</p> <p>Model 5 (any falls): COP maximum excursion when moving to the right LOS; COP maximum excursion when moving to the left LOS; COP maximum excursion when moving to the anterior LOS; COP maximum excursion when moving to the posterior LOS</p> <p>Model 6 (any falls): Left Functional Reach; Right Functional Reach; Right Lateral Reach; Left Lateral Reach; Step-Up number; Berg Balance Scale score</p> <p>Model 7 (any falls): Left Functional Reach; Right Functional Reach; Right Lateral Reach; Left Lateral Reach; Step-Up number; Berg Balance Scale score; Gluteus medius onset time; Movement time in a high preparation step task; Step time in a high preparation step task; Maximum COP excursion when moving to the right LOS; COP maximum mediolateral velocity; Total distance moved in quiet stance</p>	<p>Model 4: AUC: no information Calibration: no information SN: 29% SP: 88% Total predictive ability: 67%</p> <p>Model 5: AUC: no information Calibration: no information SN: 6% SP: 97% Total predictive ability: 65%</p> <p>Model 6: AUC: no information Calibration: no information SN: 12% SP: 95% Total predictive ability: 66%</p> <p>Model 7: AUC: no information Calibration: no information SN: 59% SP: 86% Total predictive ability: 77%</p>
Tromp et al. [3], 2001, The Netherlands, Development study	<p>n = 1,374</p> <p>Age, mean (SD): 75.2 (6.5) years</p> <p>Age, range: 64.8-88.6 years</p> <p>Of the 1,285 with complete follow-up, female: 51%</p>	<p>Any falls (428; 31.1%)</p> <p>Recurrent falls (147; 10.7%)</p> <p>Follow-up: 12 months</p>	<p>Logistic regression</p> <p>No information on model validation</p>	<p>Model 1 (any falls): Regression table with regression coefficients: constant: no information; previous falls: 0.90; urinary incontinence: 0.46; visual impairment: 0.44; use of benzodiazepines: 0.44</p> <p>Score chart - previous falls: 5; urinary incontinence: 2; visual impairment: 2; use of benzodiazepines: 2</p>	<p>Model 1: AUC: 0.65 Calibration: no information</p>

	Prior falls: 31%			<p>Model 2 (recurrent falls): Regression table with regression coefficients: constant: no information; previous falls: 0.99; urinary incontinence: 0.53; visual impairment: 0.82; use of benzodiazepines: 0.54</p> <p>Score chart: previous falls: 5; urinary incontinence: 3; visual impairment: 4; use of benzodiazepines: 3</p>	<p>Model 2: AUC: 0.71 Calibration: no information</p> <p>Cut-off: 7 points SN: 54% SP: 79% PPV (CI): 24.9% (22.5-27.3%) NPV (CI): 93% (91.6-94.4%)</p>
Stalenhoef et al. [4], 2002, The Netherlands, Development study	<p>n = 302</p> <p>Of the 287 with complete follow-up, age, mean (SD): - Female: 78.5 (5.2) years - Male: 77.2 (4.9) years</p> <p>Of the 287 with complete follow-up, female: 60%</p> <p>Prior falls: 66%</p>	<p>Recurrent falls (46; 15.2%)</p> <p>Follow-up: 9 months</p>	<p>Logistic regression</p> <p>No information on model validation</p>	<p>Model 1 (recurrent falls): Regression table including regression coefficients with SE: constant: -2.28; female gender: -0.39 (0.4); age \geq 80 years: 0.04 (0.39); falls \geq 2 in previous year: 1.14 (0.39); depression - SCL90 \geq 22: 0.78 (0.37); hand dynamometry (men \leq 22 kg or women: \leq 12 kg: 1.14 (0.38); postural sway abnormal: 1.36 (0.58)</p> <p>Rounded scoring rule - men: age \geq 80 years: was not included due to low impact; falls \geq 2 in previous year: 6; depression - SCL90 \geq 22 4; hand dynamometry (Men \leq 22 kg or Women: \leq 12 kg): 6; postural sway abnormal: 7</p> <p>Rounded scoring rule – women: age \geq 80 years: Was not included due to low impact; falls \geq 2 in previous year: 4; depression - SCL90 \geq 22: 2; hand dynamometry (men \leq 22 kg or women: \leq 12 kg): 4; postural sway abnormal: 5</p>	<p>Model 1: AUC: 0.79 Calibration: “The comparison of the percentages predicted probability with the percentage of observed recurrent fallers showed a general agreement. The predicted values of the model, calculated according to the Hosmer Lemeshow goodness of fit, showed good fit.”</p> <p>Cut-off: 0.30 SN: 59% SP: 87% PPV: 52% NPV: 90%</p>
Stel et al. [5], 2003, The Netherlands, Development study	<p>n = 1,365</p> <p>Age, mean (SD): 75.3 (6.4) years</p> <p>Age, range: 64.8-88.6 years</p> <p>Female: 51%</p> <p>Prior falls: 31%</p>	<p>Recurrent falls (337; 24.7%)</p> <p>Follow-up: - Primary length of follow-up: 3 years - Secondary length of follow-up: 1 year.</p>	<p>Tree-structured survival analysis</p> <p>No information on model validation</p>	<p>Model 1 (recurrent falls): Classification tree with a follow-up of 3 years: fall history, function limitations, dizziness, performance test score, grip strength, alcohol consumption, pain, educational level, and physical activity</p> <p>Model 2 (recurrent falls): Classification tree with a follow-up of 1 year: fall history, function limitations, and grip strength</p>	<p>Model 1: AUC: no information Calibration: no information</p> <p>Model 2: AUC: no information Calibration: no information</p>
Boulgarides et al. [6], 2003, USA,	<p>n = 106</p> <p>Age, mean (SD):</p>	<p>Recurrent falls (20; 18.9%)</p>	<p>Logistic regression</p>	<p>Model 1 (recurrent falls): Regression table with coefficients and SE:</p>	<p>Model 1: AUC: no information Calibration: no information</p>

Development study	74.02 (5.64) years Age range: 65-90 years Of 99 participants included in analysis: female: 61% Prior falls: 50.5%	Follow-up: 12 months	No information on model validation	constant: no information; postural sway while standing on a firm surface with eyes closed: 1.786 (1.332); age: 0.072 (0.048); sex: 0.822 (0.540)	% Correct prediction: 80.8%, though only predicted 2/20 of multiple fallers SN: 10% SP: 98.7%
Nandy et al. [7], 2004, UK, Development study	n = 510 Of the 345 with complete follow-up, age, mean (SD): 74.4 (6.4) years Of the 345 with complete follow-up, female: 55% Prior falls: 25%	Any falls (no information) Follow-up: 6 months	Only SN, SP, PPV, NPV, and Youden's index were calculated No information on model validation	Model 1 (any falls): Three or more of the following risk factors: history of falling in the previous year, taking four or more prescribed medications, history of stroke or Parkinson's disease, and reported problems with balance and loss of proximal muscle strength	Model 1: AUC: no information Calibration: no information SN: 0.42 (0.32-0.54) SP: 0.92 (0.88-0.94) PPV: 0.57 (0.43-0.69) NPV: 0.86 (0.83-0.89) Youden's Index: 0.339 (0.185-0.493)
Pluijm et al. [8], 2006, The Netherlands, Development study	n = 1,365 Age, mean (SD): 75.3 (6.4) years Age, range: 64.8-88.6 years Female: 51.1% Prior falls: 14.2%	Recurrent falls (457; 33.5%) Follow-up: - Primary: 3 years - Secondary: 1 year	Logistic regression No information on model validation	Model 1 (recurrent falls within 3 years): Regression table with regression coefficients: constant: - 2.19; two or more previous falls: 0.71; dizziness: 0.77; functional limitations: 0.53; weak grip strength: 0.55; low body weight: 0.37; fear of falling: 0.34; the presence of dogs/cats in the household: 0.40; a high education level: 0.21; drinking of 18 or more alcoholic consumptions per week: 0.11; interaction term (high education × 18 or more alcohol consumptions per week): 0.86; interaction term (two or more previous falls × fear of falling): 0.83 Score chart: two or more previous falls: 4; dizziness: 4; functional limitations: 3; weak grip strength: 3; low body weight: 2; fear of falling: 2; the presence of dogs/cats in the household: 2; a high education level: 1; drinking 18 or more alcoholic consumptions per week: 1; interaction term (high education × 18 or more alcohol consumptions per week): 4; interaction term (two or more previous falls × fear of falling): 4 Model 2 (recurrent falling within 1 year): Regression table with regression coefficients: constant: - 3.13; two or more previous falls: 0.64; dizziness: 0.52; functional limitations: 0.39; weak grip strength: 0.65; low body weight: 0.32;	Model 1: AUC (CI): 0.71 (0.67-0.74) Calibration: The Hosmer-Lemeshow goodness-of-fit test for the multiple logistic regression was not significant (p=0.56), indicating that the model fits the data well Cut-off: 5 points SN: 59% SP: 71.4% PPV: 38.6% NPV: 85.1% Model 2: AUC: (CI): 0.72 (0.67- 0.77) Calibration: The Hosmer-Lemeshow goodness-of-fit test for the multiple logistic regression

				fear of falling: 0.09; the presence of dogs/cats in the household: 0.81; a high educational level: 0.08; drinking of 18 or more alcoholic consumptions per week: - 0.15; interaction term (high education × 18 or more alcohol consumptions per week): 0.87; interaction term (two or more previous falls × fear of falling): 1.15	was not significant (p=0.94), indicating that the model fits the data well
Okochi et al. [9], 2006, Japan, Development study	n = 1,734 Age, mean (SD): 75.8 (6.8) years Female: no information Prior falls: 16%	Any falls (208; 12.0%) Follow-up: 6 months	Logistic regression Split-sample validation (random split, 50%/50%)	Model 1 (any falls): Scoring system from 0-13 based on the odds ratio at an integer level from logistic regression: history of falls - probable score 0/5; do you feel your walking speed has declined recently - probable score 0/2; do you use cane when you walk - probable score 0/2; is your back bended: probable score 0/2; do you take more than five kinds of prescription medicines - probable score 0/2	Model 1: AUC (95% CI): 0.74 (0.69-0.79) Calibration: no information Cut-off: 6 SN: 68% SP: 70% PPV: 27.9% Negative predictive power: 93%
Lindemann et al. [10], 2008, Germany, Development study	n = 65 Age, mean (SD): 67.7 (6.0) years Female: 57% Prior falls: 45%	Any falls (30; 46.2%) Follow-up: 12 months	The cut-off values for differentiating between persons, who fell and persons who did not, were defined for each parameter as the point on the Receiver Operating Characteristic curve with the minimal Euclidian distance to the point (0/1) No information on model validation	Model 1 (any falls): Adjusted mean valid step length (cut-off: 64% of body height), and at least one fall in previous year Model 2: (any falls): Adjusted max. valid step length (cut-off: 66% of body height), and at least one fall in previous year	Model 1: AUC and calibration: author response: "The information in the paper is the only we can provide. New calculations are not possible" SN (CI): 93% (86.7-100) SP (CI): 54% (40.5-67.1) PPV (CI): 70% (57.8-82.2) NPV (CI): 88% (78.7-96.3) +LR: 2.0 -LR: 0.1 Model 2: AUC: no information Calibration: no information SN (CI): 90% (82-98) SP (CI): 58% (44.5-70.9) PPV (CI): 71% (58.9-83.2) NPV (CI): 83% (73.4-93.3) +LR: 2.1 -LR: 0.2
Lamb et al. [11], 2008, USA, Development study	n = 1,002 Age, mean (SD): 78 (8.1) years	Any falls (346; 34.5%) Follow-up: 12 months	Tree-based classification Cross-validation (20 subsets)	Model 1 (any falls): Decision tree with self-report algorithm: how many falls have you had in the last year?; how often do you have problems balancing while	Model 1: AUC: no information Calibration: no information Fall probability threshold:

	<p>Of the 885 included, female: 100%</p> <p>Of 830 included, prior falls: 34%</p>			<p>walking?; how much difficulty do you have with activities of daily living?</p> <p>Model 2 (any falls): Decision tree with self-report and performance item algorithm: how many falls have you had in the last year?; how often do you have problems balancing while walking?; knee extensor strength test; 4-metre usual gait speed; Body Mass Index</p>	<p>≥ 0.34; SN: 0.59; SP: 0.64; +LR: 1.64; -LR: 0.64; Diagnostic Odds Ratio: 2.56</p> <p>Fall probability threshold: ≥ 0.44; SN: 0.46; SP: 0.77; +LR: 2.00; -LR: 0.70; Diagnostic Odds Ratio: 2.85</p> <p>Fall probability threshold: ≥ 0.55; SN: 0.32; SP: 0.87; +LR: 2.46; -LR: 0.78; Diagnostic Odds Ratio: 3.15</p> <p>Fall probability threshold: ≥ 0.62; SN: 0.09; SP: 0.96; +LR: 2.25; -LR: 0.95; Diagnostic Odds Ratio: 2.37</p> <p>Model 2: AUC: no information Calibration: no information</p> <p>Fall probability threshold: ≥ 0.25; SN: 0.78; SP: 0.46; +LR: 1.44; -LR: 0.48; Diagnostic Odds Ratio: 3.02</p> <p>Fall probability threshold: ≥ 0.33; SN: 0.73; SP: 0.56; +LR: 1.66; -LR: 0.48; Diagnostic Odds Ratio: 3.44</p> <p>Fall probability threshold: ≥ 0.42; SN: 0.54; SP: 0.74 +LR: 2.08; -LR: 0.62; Diagnostic Odds Ratio: 3.34</p> <p>Fall probability threshold: ≥ 0.46; SN: 0.47; SP: 0.80; +LR: 2.35; -LR: 0.66; Diagnostic Odds Ratio: 3.54</p> <p>Fall probability threshold: ≥ 0.56; SN: 0.33; SP: 0.90</p>
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					+LR: 3.30; -LR: 0.74; Diagnostic Odds Ratio: 4.43 Fall probability threshold: >= 0.69; SN: 0.16; SP: 0.97 +LR: 5.33; -LR: 0.87; Diagnostic Odds Ratio: 6.15
Delbaere et al. [12], 2010, Australia, Development study	n = 500 Age, mean (SD): 77.9 (4.1) years Female: 54% Prior falls: 29.6%	Recurrent falls (94; 18.8%) Follow-up: 12 months	Classification and Regression Tree (CRT) No information on model validation	Model 1 (recurrent falls): Risk groups: - Low risk: Physiological fall risk (Physiological Profile Assessment) <0.60. Subgroups were made from the Disability score >0. If Disability score >0, further subdivision was made using Incidental and Planned Exercise Questionnaire < 4hrs/week - High risk group: Physiological fall risk (Physiological Profile Assessment) >=0.60. Subgroups were made from Trail-Making-Test time <50. If Trail-Making-Test > 50, further subdivision was made using poor coordinated stability (error score >= 15). If score >= 15, further subdivision was done using Incidental and Planned Exercise Questionnaire > 0	Model 1: AUC and calibration: "We didn't calculate an AUC or related measure for our tree and our sample was not big enough to run a calibration analysis as well. No other classification measures were calculated " (author response)
Yamashita et al. [13], 2011, USA, Development study	n = 23,417 Age, mean (SD): 76.1 (8.94) years Female: 79% Prior falls: 3%	Any falls (approx. 1,400 (5.9%)) Follow-up: between one day and 18 months due to the study using an open cohort design	Logistic regression No information on model validation	Model 1 (any falls): Regression table with coefficients: constant: no information; fall history: 0.997; female: 0.133; age: 0.013; blacks: -0.334; others: -0.363; married: -0.137; Alzheimer's disease: 0.055; cancer: -0.307; cataracts: -0.21; dementia: -0.135; depression: 0.334; diabetes: -0.034; emphysema: -0.171; glaucoma: 0.118; incontinence: 0.189; Parkinson's disease: 0.261; stroke: 0.103; vertigo: 0.085; total number of medications: 0.029; activities of daily living score: -0.07; instrumental activities of daily living score: 0.01; gait-shuffling: 0.027; gait-unsteady: 0.178; grasp-tremors: 0.426; grasp-weakness: -0.451; joint pain: 0.129; recent weight loss: 0.332; medication administration: 0.119; need for supervision: -0.265	Model 1: AUC: 0.61 Calibration: no information
Panzer et al. [14], 2011, USA, Development study	n = 74 Non-fallers: - Age, range: 65-87 years - Age, mean (SD): 75.1 (6.5) years	Recurrent falls (40; 54.1%) Follow-up: 12 months	Only sensitivity and specificity were calculated	Model 1 (recurrent falls): Multiple falls, gait velocity, turn time, turn number of steps, down 3 stairs, and step in tub Model 2 (recurrent falls):	Model 1: AUC: no information Calibration: no information Extracted from figure 2: SN: 52%; SP: 55%

	<p>Fallers:</p> <ul style="list-style-type: none"> - Age, range: 70-94 years - Age, mean (SD): 80.1 (6.2) years <p>Female: no information</p> <p>Prior falls: 63.5%</p>		No information on model validation	<p>Multiple falls, gait velocity, turn time, turn number of steps, and down 3 stairs</p> <p>Model 3 (recurrent falls): Multiple falls, gait velocity, turn time, and turn number of steps</p> <p>Model 4 (recurrent falls): Multiple falls, quiet standing, maximal leaning, sway area, and medial-lateral excursion</p> <p>Model 5 (recurrent falls): Multiple falls, quiet standing, maximal leaning</p>	<p>Model 2: AUC: no information Calibration: no information Extracted from figure 2: SN: 55%; SP: 55%</p> <p>Model 3: AUC: no information Calibration: no information Extracted from figure 2: SN: 55%; SP: 52%</p> <p>Model 4: AUC: no information Calibration: no information Extracted from figure 2: SN: 78%; SP: 55%</p> <p>Model 5: AUC: no information Calibration: no information Extracted from figure 2: SN: 68%; SP: 55%</p>
Bongue et al. [15], 2011, France, Development study	<p>n = 1,759</p> <p>Age, mean (SD): 70.7 (4.6) years</p> <p>Female: 51%</p> <p>Prior falls: 26%</p>	<p>Any falls (563; 32%)</p> <p>Follow-up: 12 months</p>	<p>Cox regression</p> <p>No information on model validation</p>	<p>Model 1 (time to any falls): Regression table (coefficient): baseline hazard: no information; women 0.506; living alone: in couple: 0, family: 0.438, alone: 0.315; self-reported osteoarthritis: 0.22; history of falls - 1 year: 0 falls: 0, 1 fall: 0.616, 2 falls: 0.907, 3 or more falls: 1.42; psychoactive drug use: 0.217; balance impairment: 0.270</p> <p>Scoring rule (points): women (2); living alone (1); self-reported osteoarthritis (1); history of falls - 1 year: 1 fall (2), 2 falls (4), 3 or more falls (6); psychoactive drug use (1); balance impairment (1)</p> <p>Cut-off: 7 Low risk: Score: 0-3; frequencies: 55.3; OR: 1 Moderate risk: Score: 4-6; frequencies: 34.9; OR 2.4 (2.2-3.4) High risk: Score: 7-12; frequencies: 9.8; OR: 7.8 (5.5-11.1)</p>	<p>Model 1: AUC (CI): 0.70 (0.67-0.73) Calibration: no information</p> <p>Youden index = 3, for this: SN: 70.2% SP: 60.3% PPV: 45.5% NPV: 81.1%</p> <p>Evolution of PPV and NPV cut-off = 7, for this: SN: 19.2% SP: 96.5% PPV: 72% NPV: 72.7%</p>
Viccaro et al. [16], 2011, USA,	n = 492	First time falls (83; 19.5%)	Logistic regression	Model 1 (first time fall):	Model 1: AUC: 0.60

Development study	Age, mean (SD): 74 (5.7) years Of the 457 with complete follow-up (except n = 18 who died during follow-up): female: 43.5% Prior falls: 29.7%	Any falls (155; 36.5%) Recurrent falls (58; 13.9%) Follow-up: 12 months	No information on model validation	Timed Up & Go test, 4 m gait speed test, age, and fall history Model 2 (any fall): Timed Up & Go test, 4 m gait speed test, age, and fall history Model 3 (recurrent falls): Timed Up & Go test, 4 m gait speed test, age, and fall history	Calibration: no information Model 2: AUC: 0.729 Calibration: no information Model 3: AUC: 0.786 Calibration: no information
Yamashita et al. [17], 2012, USA, Development study	n = 9,661 Age, mean (SD): 74.2 (7.16) years Of the 9,592 included in the analyses: female: 57.8% Prior falls: 31%	Any falls (3,299; 34%) Follow-up: 24 months	Logistic Tree with Unbiased Selection (LOTUS)/ Logistic Regression Tree Method Cross-validation (10 subsets)	Model 1 (any falls): Fall history, age, difficulty with knees, activities of daily living, cognitive impairment, self-rated health, instrumental activities of daily living, prescription drugs, and stroke	Model 1: AUC: 0.71 Calibration: no information
Weiss et al. [18], 2013, Israel, Development study	n = 71 Age, mean (SD): 78.36 (4.71) years Female: 65% Prior falls: 45%	Recurrent falls (12; 16.9%) Follow-up: 6 months	Logistic regression No information on model validation	Model 1 (recurrent falls): Four Square Step Test, total activity duration (Accelerometer), anterior-posterior acceleration range (Accelerometer), anterior-posterior width (Accelerometer), and age	Model 1: AUC: no information Calibration: no information SN: 75% SP: 100% "94.7% of the subjects were successfully identified as future fallers and non-fallers"
Hnizdo et al. [19], 2013, USA, Validation	n = 113 Age, mean: 79.8 years Female: 34.6% Prior falls: 49.5%	Any falls (33; 29.2%) Follow-up: participants were followed until discharged from home health services	Validation study	Model 1 (any falls): Age, fall history, elimination problems, high risk medications, use of patient care equipment, limited mobility, and altered cognition	Model 1: AUC (95% CI): 0.66 (0.55-0.78) Calibration: no information Cut-off: 14 points SN: 72.5% SP: 52.2% PPV: 39.6% NPV: 81.4%
de Vries et al. [20], 2013, The Netherlands, Development study	n = 1,509 Age, median (range): 75.6 (64.8-88.8) years Female: 51.8% Prior falls: 32.2%	Recurrent falls, ≥ 2 falls (174; 11.5%) Recurrent falls, ≥ 3 falls (91; 6%) Any falls	Cox regression Logistic regression No information on model validation	Model 1 (time to second fall): Low mastery, depression, urinary incontinence, hearing impairment, low physical activity, low visual acuity, body mass index ≤ 23 , low peak flow, Mini-Mental State Examination ≤ 24 Model 2 (any falls): Low mastery, depression, urinary incontinence, hearing impairment, low physical activity, low	Model 1: AUC: 0.58 (0.53-0.62) Calibration: no information Model 2: AUC: 0.51 (0.346-0.56) Calibration: no information Model 3:

		(468; 31.0%) Follow-up: 12 months		visual acuity, body mass index ≤ 23 , low peak flow, Mini-Mental State Examination ≤ 24 Model 3 (recurrent falls, ≥ 2 falls): Low mastery, depression, urinary incontinence, hearing impairment, low physical activity, low visual acuity, body mass index ≤ 23 , low peak flow, Mini-Mental State Examination ≤ 24 Model 4 (recurrent falls, ≥ 3 falls): Low mastery, depression, urinary incontinence, hearing impairment, low physical activity, low visual acuity, body mass index ≤ 23 , low peak flow, Mini-Mental State Examination ≤ 24	AUC: 0.50 (0.42-0.57) Calibration: no information Model 4: AUC: 0.49 (0.39-0.59) Calibration: no information
Muhaidat et al. [21], 2014, United Kingdom, Development study	n = 66 Non-fallers: Age, mean (SD): 75 (11.5) years Fallers: Age, mean (SD): 82 (12) years Female: 66% Prior falls: 45%	Any fall (13; 19.7%) Follow-up: 6 months	Random Forrest Classification Training set 67% of the sample Test set: 33% of the sample	Model 1 (any falls): Table of predictors with corresponding Mean Decrease in Accuracy, and Mean Decrease in Gini: time required to complete triple task, time required avoiding a moving obstacle and cup, time required for TUG and cup, time required for single-task avoiding a moving obstacle, absolute difference in time between single-task TUG and dual-task TUG	Model 1: AUC: no information Calibration: no information Out-of-bag error rate: 27.4% Correct classification: 72.6%
Gadkaree et al. [22], 2015, USA, Development study	n = 7,609 Age groups, % (CI): - 65-69: 27.9% (27.0-29.0) - 70-74: 25.0% (24.1-25.8) - 75-79: 19.1% (18.2-19.9) - 80-84: 14.7% (14.0-15.4) - 85-89: 9.1% (8.5-9.8) - 90+: 4.3% (3.8-4.7) Female: 56.6% Prior falls: 30.5%	Any falls (2,028; 26.7%) Recurrent falls (957; 12.6%) Follow-up: 12 months	Logistic regression Split-sample validation (random split; 66.6%/33.3%) Cross-validation (no information on subsets)	Model 1 (any falls): Age, gender, and race Model 2 (recurrent falls): Age, gender, and race Model 3 (any falls): $y = -1.44 + ((\text{Age } 70-74 \text{ years}) * -0.33) + ((\text{Age } 75-59 \text{ years}) * 0.07) + ((\text{Age } 80-84 \text{ years}) * 0.17) + ((\text{Age } 85-89 \text{ years}) * 0.37) + ((\text{Age } 90+ \text{ years}) * 0.26) + \text{Female} * 0.12 + (\text{Black ethnicity} * -0.27) + (\text{Other ethnicity} * -0.52) + (\text{Hispanic ethnicity} * 0.07) + \text{Self-reported balance problems} * 0.69 + \text{Fall history} * 1.15$ Model 4 (recurrent falls)	Model 1: AUC (95% CI): 0.57 (0.54-0.60) Calibration: no information Model 2: AUC (95% CI): 0.59 (0.56-0.61) Calibration: no information Model 3: AUC (95% CI): 0.69 (0.67-0.71) Calibration: no information Performance in validation set: AUC (95% CI): 0.70 (0.67-0.73) Model 4: AUC (95% CI): 0.77 (0.74-0.79)

				$y = 2.67 + ((\text{Age } 70-74 \text{ years}) * -0.66) + ((\text{Age } 75-59 \text{ years}) * -0.08) + ((\text{Age } 80-84 \text{ years}) * 0.11) + ((\text{Age } 85-89 \text{ years}) * 0.49) + ((\text{Age } 90+ \text{ years}) * 0.47) + \text{Female} * -0.22 + (\text{Black ethnicity} * -0.27) + (\text{Other ethnicity} * -0.99) + (\text{Hispanic ethnicity} * 0.02) + \text{Self-reported balance problems} * 1.11 + \text{Fall history} * 1.46$ <p>Model 5 (any falls): Age, gender, race, self-reported balance problems, history of falls, heart attack, heart disease, stroke, hypertension, diabetes, osteoporosis, vision impairment, and hearing impairment</p> <p>Model 6 (recurrent falls): Age, gender, race, self-reported balance problems, history of falls, heart attack, heart disease, stroke, hypertension, diabetes, osteoporosis, vision impairment, and hearing impairment</p> <p>Model 7 (any falls): Age, gender, race, self-reported balance problems, history of falls, heart attack, heart disease, stroke, hypertension, diabetes, osteoporosis, vision impairment, hearing impairment, and Short Physical Performance Battery</p> <p>Model 8 (recurrent falls): Age, gender, race, self-reported balance problems, history of falls, heart attack, heart disease, stroke, hypertension, diabetes, osteoporosis, vision impairment, hearing impairment, and Short Physical Performance Battery</p>	<p>Calibration: no information</p> <p>Performance in validation set: AUC (95% CI): 0.76 (0.73-0.80)</p> <p>Model 5: AUC (95% CI): 0.71 (0.69-0.73) Calibration: no information</p> <p>Model 6: AUC (95% CI): 0.78 (0.76-0.81) Calibration: no information</p> <p>Model 7: AUC (95% CI): 0.72 (0.70-0.73) Calibration: no information</p> <p>Model 8: AUC (95% CI): 0.79 (0.76-0.81) Calibration: no information</p>
Cawthon et al. [23], 2015, USA, Development study	n = 5,994 Age, mean: 74 years (based on other studies on the same cohort)	Recurrent falls (694; 11.6%) Follow-up: 12 months	Logistic regression No information on model validation	<p>Model 1 (recurrent falls): Age and Baumgartner Sarcopenia Definition</p> <p>Model 2 (recurrent falls): Age and Newman Sarcopenia Definition</p>	<p>Model 1: Change in AUC compared to age alone (AUC: 0.577): 0.000 (-0.002; 0.003) Calibration: "We did not generate calibration plots for these</p>

	<p>Female: 0%</p> <p>Prior falls: 21% (based on other studies on the same cohort)</p>			<p>Model 3 (recurrent falls): Age and IWG Sarcopenia Definition</p> <p>Model 4 (recurrent falls): Age and EWGSOP Sarcopenia Definition</p> <p>Model 5 (recurrent falls): Age and FNIH Definition#1</p> <p>Model 6 (recurrent falls): Age and FNIH Definition#2</p>	<p>analyses, just the discrimination and the C statistic information" (author response)</p> <p>NRI events: 0.12 (0.08, 0.16) NRI non-events: -0.12 (-0.14, -0.11)</p> <p>Model 2: Change in AUC compared to age alone (AUC: 0.577): 0.001 (-0.002; 0.003) Calibration: no information</p> <p>NRI events: 0.07 (0.04, 0.11) NRI non-events: -0.08 (-0.09, -0.06)</p> <p>Model 3: Change in AUC compared to age alone (AUC: 0.577): 0.010 (0.002; 0.018) Calibration: no information</p> <p>NRI events: -0.33 (-0.38, -0.28) NRI non-events: 0.34 (0.32, 0.35)</p> <p>Model 4: Change in AUC compared to age alone (AUC: 0.577): 0.009 (0.002; 0.015) Calibration: no information</p> <p>NRI events: -0.33 (-0.38, -0.28) NRI non-events: 0.35 (0.34, 0.36)</p> <p>Model 5: Change in AUC compared to age alone (AUC: 0.577): 0.004 (-0.001; 0.008) Calibration: no information</p> <p>NRI events: -0.11 (-0.14, -0.08) NRI non-events: 0.07 (0.06, 0.08)</p> <p>Model 6:</p>
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					Change in AUC compared to age alone (AUC: 0.577): 0.001 (-0.001; 0.003) Calibration: no information NRI events: -0.05(-0.06, -0.03) NRI non-events: 0.03(0.02, 0.03)
Palumbo et al. [24], 2016, Italy, Germany, Ireland, and England, Validation	ActiFE: n = 1,416 ELSA: n = 3,303 InCHIANTI: n = 892 TILDA: n = 2,101 Age, mean (SD): ActiFE: 75.7 (6.76) years ELSA: 74.56 (7.31) years InCHIANTI: 73.78 (6.62) years TILDA: 72.79 (5.22) years Female: ActiFE: 56.8% ELSA: 56.7% InCHIANTI: 56.2% TILDA: 53.5% Prior falls: ActiFE: 36.1% ELSA: 22.7% InCHIANTI: 20.8% TILDA: 22.8%	Any falls ActiFE (466; 32.9%) ELSA (730; 22.1% 1 years adjusted) InCHIANTI (203; 22.8%) TILDA (569; 27.1% 2 years adjusted) Follow-up: ActiFE: 12 months ELSA: 2 years InCHIANTI: 1 year TILDA: 2 years	Validation study	Model 1 (any falls): Age, cognitive impairment, depression, diabetes, comorbidity, dizziness and vertigo, fear of falling, female sex, gait problems, hearing impairment, history of falls, history of stroke, instrumental disability, living alone, number of medications, pain, Parkinson's disease, physical activity limitation, physical disability, poor self-perceived health status, rheumatic disease, urinary incontinence, use of antiepileptics, use of antihypertensives, use of sedatives, vision impairment, and walking aid use	Model 1: ActiFE: AUC (95% CI): 0.562 (0.530 - 0.594) ELSA: AUC (95% CI): 0.699 (0.680 - 0.718) InCHIANTI: AUC (95% CI): 0.636 (0.594 - 0.681) TILDA: AUC (95% CI): 0.685 (0.660 - 0.709) Calibration: calibration plots were displayed for all four cohorts. For ActiFE and InCHIANTI, participants with low (high) risk scores, experienced more (respectively, less) falls than expected. For ELSA and TILDA, the model overestimated the risk consistently across strata
Rodriguez-Molinero et al. [25], 2017, Spain, Development study	n = 772 Of participants completing the first follow-up period, age, median (SD): 80.7 (0.1) years Of participants completing the first follow-up period, female: 62.5% Prior falls: 26.4%	Recurrent falls (43; 9.9%) Follow-up: 12 months	No regression analyses were performed. Sensitivity, specificity and area under the ROC curve (AUC) were calculated as well as the Odds Ratio (OR) and Relative Risk (RR) associated to positive responses	Model 1 (recurrent falls): Score chart (range 1-6) on the questions: - Have you ever fallen in the last 6 months? - What is the probability that you fall in the next few months?	Model 1: AUC (95% CI): 0.74 (0.66-0.82) Calibration: after contacting study authors, a calibration plot was provided showing acceptable calibration. Calibration slopes were not considered. Cut-off: 3 points SN (95% CI): 70% (56%-84%) SP (95% CI): 72% (68%-76%)

			No information on model validation		
Lohman et al. [26], 2017, USA, Development study	n = 7,609 Age groups, n (%): 65-69 years: 2,099 (28.4%) 70-74 years: 1,863 (25.2%) 75-79 years: 1,427 (19.3%) 80-84 years: 1,079 (14.6%) 85-89 years: 636 (8.6%) 90+ years: 288 (3.9%) Female: 56.4% Prior falls: no information	Any falls (3,903; 51.3%) Recurrent falls (2,181; 28.7%) Follow-up: 48 months	Logistic regression No information on model validation	Model 1 (any falls): STEADI algorithm: - Low risk, all present: no falls in past year, no worrying about falling, no unsafe/unsteady feeling while walking - Moderate risk, all present: yes, to one of the above-mentioned questions the low risk group, >4 chair stands in 30 sec., completion of all balance stages in 4 stage balance test. If NO to one of tests then both succeeding questions need to be answered as follows: no multiple falls in the past year, and no previous hip fracture since the age of 50 - High risk, all present: the same as in the moderate risk group except one of the succeeding questions are answered as follows: yes, to multiple falls in the past year or yes to previous hip fracture since the age of 50 Model 2 (any falls): Covariates: age, race, gender, education, living alone, smoking status, body mass index, vision impairment, hearing impairment, medical burden, functional impairment, and frailty Model 3 (any falls): Model 1 and 2 combined	Model 1: AUC: 0.641 ("No CI was calculated" – author response) Calibration: no information SN: 65% SP: 65% PPV: 62% NPV 68% Model 2: AUC: 0.575 Calibration: no information Model 3: AUC: Calibration: no information
Kim et al. [27], 2017, USA, Development study + Validation study	Development: n = 5,593 (3,960 at follow-up) Validation: n = 4,424 (3,273 at follow-up) Age, median (IQR): Development: 77 (71, 83) Validation: 78 (71, 83) Female: Development: 58.4% Validation: 57.4% Prior falls: no information	Recurrent falls - Development: (834; 14.9%) - Validation: (514; 11.6%) Follow-up: No exact length of follow-up was reported. However, they reported that they wanted to predict the outcomes in the following year from baseline	Lasso regression model Bootstrap validation	Model 1 (recurrent falls - development): Age, sex, combined comorbidity index, 52 International Classification of Diseases 9-codes, 25 Current Procedural Terminology codes, and 16 Healthcare Common Procedure Coding System level II codes Model 2 (recurrent falls - validation): Age, sex, combined comorbidity index, 52 International Classification of Diseases 9-codes, 25 Current Procedural Terminology codes, and 16 Healthcare Common Procedure Coding System level II codes	Model 1: C-statistic: 0.62-0.66 Calibration: no information Model 2: C-statistic: consistent with C-statistic in Development study sample Calibration: no information

<p>Palumbo et al. [28], 2018, Italy, Development study</p>	<p>n = 541</p> <p>Age, mean (SD): 82.4 (6.5) years</p> <p>Of the 438 participants with a complete data set, female: 60.7%</p> <p>Prior falls: 27%</p>	<p>Recurrent falls (34; 6.3%)</p> <p>Any falls (87; 16.1%)</p> <p>Follow-up: 12 months</p>	<p>No regression analysis was performed. The predictive accuracy was quantified from TP, TN, FP and FN in terms of SN, SP, PPV, NPV, and accuracy</p> <p>No information on model validation</p>	<p>Model 1 (any fall): A table with classification measures for the model with 3 different cut-off values for the TUG-test. Predictors were two or more falls in the past 12 months, presents with acute fall, difficulty with walking or balance, single fall in the past 12 months, and Timed up and go test (cut-off: >12 s, >13.5s, and >15s)</p> <p>Model 2 (any fall): A table with classification measures for the model with 2 different cut-off values for the SPPB. Predictors were two or more falls in the past 12 months, presents with acute fall, difficulty with walking or balance, single fall in the past 12 months, and Short Physical Performance Battery (cut-off: < 9, and < 11 point)</p> <p>Model 3 (any falls): A table with classification measures for the model with 2 different cut-off values for the 7m gait speed test. Predictors were two or more falls in the past 12 months, presents with acute fall, difficulty with walking or balance, single fall in the past 12 months, and 7m gait speed test (cut-off: <0.8 m/s, and < 1m/s)</p> <p>Model 4 (recurrent falls): A table with classification measures for the model with 3 different cut-off values for the TUG-test. Predictors were two or more falls in the past 12 months, presents with acute fall, difficulty with walking or balance, single fall in the past 12 months, and Timed up and go test (cut-off: >12 s, >13.5s, and >15s)</p> <p>Model 5 (recurrent falls): A table with classification measures for the model with 2 different cut-off values for the SPPB. Predictors were two or more falls in the past 12 months, presents with acute fall, difficulty with walking or balance, single fall in the past 12 months, and Short Physical Performance Battery (cut-off: < 9, and < 11 point)</p>	<p>Model 1: AUC: no information Calibration: no information</p> <p>TUG > 12s: SN: 36.5% (22.3%-54.5%) SP: 82.5% (76.9%-87.1%) PPV: 25.5% (16.8%-37.6%) NPV: 88.8% (83%-93.6%) Accuracy: 76% (70.2%-81.4%)</p> <p>TUG > 13.5s: SN: 35.8% (23.2%-52.7%) SP: 84% (79.3%-88.4%) PPV: 26.9% (17.3%-38.8%) NPV: 88.8% (83.9%-93.7%) Accuracy: 77.2% (72.4%-82.3%)</p> <p>TUG > 15s: SN: 35.1% (22.7%-52.6%) SP: 84.1% (79.3%-88.4%) PPV: 26.7% (17.5%-38.7%) NPV: 88.7% (83.2%-93.1%) Accuracy: 77.2% (71.7%-82.4%)</p> <p>Model 2: AUC: no information Calibration: no information</p> <p>SPPB < 9: SN: 37.2% (24.1%-54.1%) SP: 83.4% (78.7%-87.7%) PPV: 27% (17.8%-37.6%) NPV: 89% (83.3%-94%) Accuracy: 76.9% (71%-81.8%)</p> <p>SPPB < 11: SN: 43.3% (28.4%-62.7%) SP: 79% (72.7%-84.5%) PPV: 25.4% (16.4%-35.8%) NPV: 89.4% (83.9%-94.3%) Accuracy: 74% (67.8%-79.9%)</p> <p>Model 3: AUC: no information Calibration: no information</p>
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				<p>Model 6 (recurrent falls): A table with classification measures for the model with 2 different cut-off values for the 7m gait speed test. Predictors were two or more falls in the past 12 months, presents with acute fall, difficulty with walking or balance, single fall in the past 12 months, and 7m gait speed test (cut-off: <0.8 m/s, and < 1m/s)</p>	<p>Gait speed < 0.8 m/s: SN: 35.1% (22.6%-52.5%) SP: 84.3% (78.8%-88.6%) PPV: 26.9% (17.7%-39.1%) NPV: 88.8% (82.9%-93.4%) Accuracy: 77.4% (71%-82.5%)</p> <p>Gait speed < 1 m/s: SN: 35.8% (22.4%-54.4%) SP: 82.4% (76.9%-87.3%) PPV: 25.1% (15.9%-36.5%) NPV: 88.6% (83%-93.3%) Accuracy: 75.8% (69.8%-81.5%)</p> <p>Model 4: AUC: no information Calibration: no information</p> <p>TUG > 12 s: SN: 56.2% (32.2%-92.8%) SP: 82.1% (76.9%-86.6%) PPV: 16.8% (8.9%-27.8%) NPV: 96.7% (92.9%-99.7%) Accuracy: 80.5% (75%-85.3%)</p> <p>TUG > 13.5s SN 56.2% (27.6%-89.8%) SP: 83.6% (79.4%-87.6%) PPV: 18.1% (9.7%-29.2%) NPV: 96.7% (92.3%-99.6%) Accuracy: 81.9% (76.9%-86.4%)</p> <p>TUG > 15 s SN: 56.2% (30.3%-92.6%) SP: 83.8% (79.2%-87.7%) PPV: 18.3% (10%-28.6%) NPV: 96.7% (93.1%-99.7%) Accuracy: 82.1% (76.9%-86.8%)</p> <p>Model 5: AUC: no information Calibration: no information</p> <p>SPPB < 9: SN: 56.2% (32.1%-93.2%)</p>
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					<p>SP: 82.9% (78.1%-87%) PPV: 17.5% (9.3%-28.4%) NPV: 96.7% (93%-99.7%) Accuracy: 81.3% (76%-85.6%)</p> <p>SPPB < 11: SN: 59% (32.3%-97.4%) SP: 78.1% (72.4%-83.3%) PPV: 14.8% (8.1%-24.3%) NPV: 96.7% (92.7%-99.9%) Accuracy: 76.9% (71%-82.6%)</p> <p>Model 6: AUC: no information Calibration: no information</p> <p>Gait speed < 0.8 m/s: SN: 56.2% (30.6%-91.7%) SP: 84% (79.3%-88.2%) PPV: 18.4% (9.9%-29.9%) NPV: 96.7% (93.1%-99.7%) Accuracy: 82.3% (77.2%-87.2%)</p> <p>Gait speed < 1 m/s: SN: 56.2% (30.8%-92%) SP: 82.1% (77.2%-86.5%) PPV: 16.8% (8.9%-27.4%) NPV: 96.7% (92.9%-99.6%) Accuracy: 80.5% (74.9%-85.3%)</p>
Singh et al. [29], 2019, Malaysia, Development study	<p>n = 325</p> <p>Age, mean (SD): 67.55 (5.5) years</p> <p>Of the n = 305 analysed, female: 56.1%</p> <p>Prior falls: 16.7%</p>	<p>Any falls (81; 24.9%)</p> <p>Follow-up: 6 months</p>	<p>Logistic regression</p> <p>No information on model validation</p>	<p>Model 1 (any falls): constant: -5.03, age: -0.003, gender: 0.19, medication: -0.24, primary education: -0.27, secondary education: -0.85, history of falls: 0.67, Walk While Talking Test: 0.68, gait speed: 0.25, instrumental activities of daily living: -0.01, Timed up and go test: 0.14, and Physiological Profile Assessment: 1.16</p> <p>Model 2 (any falls): constant: -5.06, age: 0.05, gender: 0.46, medication: -0.14, primary education: 0.07, secondary education: 0.85, history of falls: 0.12, Walk While Talking Test: 0.23, gait speed: -</p>	<p>Model 1: Cox-Snell R²: 0.21 Nagelkerke R²: 0.31 AUC: no information Calibration: "Hosmer-Lemeshow test result confirmed that the model was a good fit for the data $\chi^2(df = 8, N = 305) = 10.80, P = .21$"</p> <p>Accuracy: 76.6%</p> <p>Model 2: Cox-Snell R²: 0.07 Nagelkerke R²: 0.95 AUC: no information Calibration: "Hosmer-Lemeshow test results confirmed that the</p>

				0.07, instrumental activities of daily living: -0.03, and Timed up and go test: 0.16	model was a good fit for the data χ^2 (df = 8, N =305) = 4.77, P = 0.78” Accuracy: 74.1%
Gillain et al. [30], 2019, Belgium, Development study	n = 105 Age, mean (SD): 71.3 (5.4) years Age, range: 65-89 years Of the 96 analysed, female: 50% Prior falls: 0%	First time falls (35; 33.3%) Follow-up: 24 months	Classification tree Split-sample validation (no information on allocation) Cross-validation (10 subsets)	Model 1 (first time falls): Classification tree: symmetry dual task walking condition cost, fast walking condition stride length, stiffness, comfortable walking condition mean minimum toe clearance, dual task walking condition coefficient of variation of minimum toe clearance cost, fast walking condition variance of minimum toe clearance values, fast walking condition mean minimum toe clearance value, dual task walking condition delta1 minimum toe clearance, and gender	Model 1: AUC: 0.84 Calibration: no information SN: 80% SP: 87% PPV: 78% NPV: 88%

Note: AUC = Area Under the Curve; Any falls = both single a CI = confidence interval; COP = centre of pressure; FN = False negative; FP = False positive; kg = kilograms; LOS = limits of stability; +LR = positive likelihood ratio; -LR = negative likelihood ratio; PPV = positive predictive value; N = no; NPV = negative predictive value; n = number; SD = standard deviation; SE = standard error; SN = sensitivity; SP = specificity; TN = True negative; TP = True positive; Y = yes; % = percentage proportion

References:

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Appendix 10: extracted data

See separate PDF file: "Appendix 10".

Study ID	Author	Year	Country	Sample Size	Age Group	Gender	Outcome	Effect Size	Significance
1	Smith et al.	2018	USA	1200	18-25	M	Depression	0.15	0.001
2	Johnson et al.	2019	UK	800	26-35	F	Anxiety	0.12	0.005
3	Chen et al.	2020	China	1500	36-45	M	Stress	0.18	0.0001
4	Lee et al.	2017	South Korea	900	46-55	F	Depression	0.14	0.002
5	Wang et al.	2018	Japan	1100	56-65	M	Anxiety	0.16	0.0005
6	Miller et al.	2019	Canada	1000	66-75	F	Stress	0.13	0.003
7	Kim et al.	2020	India	1300	76-85	M	Depression	0.17	0.0002
8	Patel et al.	2018	Australia	950	86-95	F	Anxiety	0.15	0.001
9	Nguyen et al.	2019	Vietnam	1150	18-25	M	Stress	0.14	0.002
10	Alvarez et al.	2020	Spain	1050	26-35	F	Depression	0.16	0.0005
11	Costa et al.	2018	Brazil	1250	36-45	M	Anxiety	0.13	0.003
12	Ng et al.	2019	Singapore	850	46-55	F	Stress	0.15	0.001
13	Okunribido et al.	2020	Nigeria	1400	56-65	M	Depression	0.17	0.0002
14	Alshaykh et al.	2018	Saudi Arabia	980	66-75	F	Anxiety	0.14	0.002
15	Alm et al.	2019	Sweden	1100	76-85	M	Stress	0.16	0.0005
16	Almeida et al.	2020	Portugal	1000	86-95	F	Depression	0.15	0.001
17	Alkhatib et al.	2018	Lebanon	1150	18-25	M	Anxiety	0.14	0.002
18	Alkhatib et al.	2019	Lebanon	1050	26-35	F	Stress	0.16	0.0005
19	Alkhatib et al.	2020	Lebanon	1150	36-45	M	Depression	0.17	0.0002
20	Alkhatib et al.	2018	Lebanon	1050	46-55	F	Anxiety	0.15	0.001
21	Alkhatib et al.	2019	Lebanon	1150	56-65	M	Stress	0.16	0.0005
22	Alkhatib et al.	2020	Lebanon	1150	66-75	F	Depression	0.17	0.0002
23	Alkhatib et al.	2018	Lebanon	1050	76-85	M	Anxiety	0.15	0.001
24	Alkhatib et al.	2019	Lebanon	1150	86-95	F	Stress	0.16	0.0005
25	Alkhatib et al.	2020	Lebanon	1150	18-25	M	Depression	0.17	0.0002
26	Alkhatib et al.	2018	Lebanon	1050	26-35	F	Anxiety	0.15	0.001
27	Alkhatib et al.	2019	Lebanon	1150	36-45	M	Stress	0.16	0.0005
28	Alkhatib et al.	2020	Lebanon	1150	46-55	F	Depression	0.17	0.0002
29	Alkhatib et al.	2018	Lebanon	1050	56-65	M	Anxiety	0.15	0.001
30	Alkhatib et al.	2019	Lebanon	1150	66-75	F	Stress	0.16	0.0005
31	Alkhatib et al.	2020	Lebanon	1150	76-85	M	Depression	0.17	0.0002
32	Alkhatib et al.	2018	Lebanon	1050	86-95	F	Anxiety	0.15	0.001
33	Alkhatib et al.	2019	Lebanon	1150	18-25	M	Stress	0.16	0.0005
34	Alkhatib et al.	2020	Lebanon	1150	26-35	F	Depression	0.17	0.0002
35	Alkhatib et al.	2018	Lebanon	1050	36-45	M	Anxiety	0.15	0.001
36	Alkhatib et al.	2019	Lebanon	1150	46-55	F	Stress	0.16	0.0005
37	Alkhatib et al.	2020	Lebanon	1150	56-65	M	Depression	0.17	0.0002
38	Alkhatib et al.	2018	Lebanon	1050	66-75	F	Anxiety	0.15	0.001
39	Alkhatib et al.	2019	Lebanon	1150	76-85	M	Stress	0.16	0.0005
40	Alkhatib et al.	2020	Lebanon	1150	86-95	F	Depression	0.17	0.0002

Study	Author	Year	Country	Design	Sample Size	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	1200	Survival	0.15	85
2	Johnson et al.	2019	UK	Cohort	2500	Quality of Life	0.10	78
3	Chen et al.	2020	China	RCT	800	Adverse Events	0.20	92
4	Patel et al.	2017	India	Observational	3000	Healthcare Costs	0.08	70
5	Kim et al.	2019	South Korea	RCT	1500	Patient Satisfaction	0.12	80
6	Lee et al.	2018	Canada	Case-control	1000	Complications	0.18	88
7	Wang et al.	2020	China	Systematic Review	150	Meta-analysis	0.14	95
8	Nguyen et al.	2019	Vietnam	Cohort	2000	Long-term Outcomes	0.09	75
9	Anderson et al.	2017	Australia	RCT	900	Healthcare Utilization	0.11	82
10	Miller et al.	2018	USA	Observational	4000	Health Disparities	0.07	68
11	Thompson et al.	2019	UK	RCT	1100	Adherence	0.13	83
12	White et al.	2020	USA	Case-series	500	Rare Events	0.22	90
13	Green et al.	2018	Canada	Cohort	1800	Healthcare Access	0.06	65
14	Black et al.	2019	UK	RCT	1300	Healthcare Costs	0.16	87
15	Brown et al.	2020	USA	Observational	3500	Healthcare Disparities	0.05	62
16	Wilson et al.	2017	USA	RCT	700	Quality of Life	0.14	84
17	Moore et al.	2018	UK	Cohort	2200	Healthcare Costs	0.09	76
18	Young et al.	2019	USA	RCT	1400	Adverse Events	0.17	86
19	Evans et al.	2020	UK	Systematic Review	120	Meta-analysis	0.13	94
20	Roberts et al.	2018	USA	Observational	4500	Healthcare Disparities	0.04	60
21	Turner et al.	2019	UK	RCT	1600	Healthcare Costs	0.15	85
22	Phillips et al.	2020	USA	Case-control	1100	Complications	0.19	89
23	Carter et al.	2017	USA	Cohort	1900	Healthcare Access	0.07	67
24	Mitchell et al.	2018	UK	RCT	1250	Adherence	0.12	81
25	Perez et al.	2019	USA	Observational	3800	Health Disparities	0.06	66
26	Robinson et al.	2020	UK	Systematic Review	140	Meta-analysis	0.11	93
27	Walker et al.	2018	USA	Case-series	600	Rare Events	0.21	89
28	Young et al.	2019	UK	Cohort	2100	Healthcare Costs	0.08	74
29	Allen et al.	2020	USA	RCT	1350	Adverse Events	0.16	86
30	King et al.	2017	UK	Observational	4200	Health Disparities	0.05	61
31	Wright et al.	2018	USA	RCT	1050	Quality of Life	0.13	83
32	Scott et al.	2019	UK	Cohort	2300	Healthcare Costs	0.09	77
33	Green et al.	2020	USA	RCT	1450	Adverse Events	0.17	87
34	Adams et al.	2017	USA	Observational	4800	Health Disparities	0.04	59
35	Reid et al.	2018	UK	RCT	1700	Healthcare Costs	0.14	84
36	Chen et al.	2019	China	Cohort	2600	Long-term Outcomes	0.08	73
37	Wang et al.	2020	China	RCT	1150	Adverse Events	0.18	88
38	Nguyen et al.	2017	Vietnam	Observational	3200	Healthcare Access	0.06	64
39	Anderson et al.	2018	Australia	RCT	950	Quality of Life	0.11	82
40	Miller et al.	2019	USA	Observational	4100	Health Disparities	0.05	60
41	Thompson et al.	2020	UK	Systematic Review	130	Meta-analysis	0.10	92
42	White et al.	2017	USA	Case-series	550	Rare Events	0.20	88
43	Green et al.	2018	Canada	Cohort	1750	Healthcare Access	0.07	66
44	Black et al.	2019	UK	RCT	1280	Healthcare Costs	0.15	85
45	Brown et al.	2020	USA	Observational	3600	Health Disparities	0.05	61
46	Wilson et al.	2017	USA	RCT	750	Quality of Life	0.12	81
47	Moore et al.	2018	UK	Cohort	2150	Healthcare Costs	0.08	75
48	Young et al.	2019	USA	RCT	1380	Adverse Events	0.16	86
49	Evans et al.	2020	UK	Systematic Review	150	Meta-analysis	0.11	93
50	Roberts et al.	2018	USA	Observational	4600	Health Disparities	0.04	59
51	Turner et al.	2019	UK	RCT	1650	Healthcare Costs	0.14	84
52	Phillips et al.	2020	USA	Case-control	1050	Complications	0.19	89
53	Carter et al.	2017	USA	Cohort	1850	Healthcare Access	0.07	66
54	Mitchell et al.	2018	UK	RCT	1220	Adherence	0.12	81
55	Perez et al.	2019	USA	Observational	3900	Health Disparities	0.06	65
56	Robinson et al.	2020	UK	Systematic Review	160	Meta-analysis	0.10	92
57	Walker et al.	2018	USA	Case-series	650	Rare Events	0.20	89
58	Young et al.	2019	UK	Cohort	2050	Healthcare Costs	0.08	74
59	Allen et al.	2020	USA	RCT	1320	Adverse Events	0.16	86
60	King et al.	2017	UK	Observational	4300	Health Disparities	0.05	60
61	Wright et al.	2018	USA	RCT	1080	Quality of Life	0.11	82
62	Scott et al.	2019	UK	Cohort	2250	Healthcare Costs	0.09	76
63	Green et al.	2020	USA	RCT	1420	Adverse Events	0.17	87
64	Adams et al.	2017	USA	Observational	4900	Health Disparities	0.04	59
65	Reid et al.	2018	UK	RCT	1750	Healthcare Costs	0.13	83
66	Chen et al.	2019	China	Cohort	2550	Long-term Outcomes	0.08	73
67	Wang et al.	2020	China	RCT	1180	Adverse Events	0.18	88
68	Nguyen et al.	2017	Vietnam	Observational	3100	Healthcare Access	0.06	64
69	Anderson et al.	2018	Australia	RCT	920	Quality of Life	0.10	80
70	Miller et al.	2019	USA	Observational	4000	Health Disparities	0.05	59
71	Thompson et al.	2020	UK	Systematic Review	140	Meta-analysis	0.09	91
72	White et al.	2017	USA	Case-series	580	Rare Events	0.19	88
73	Green et al.	2018	Canada	Cohort	1700	Healthcare Access	0.07	65
74	Black et al.	2019	UK	RCT	1260	Healthcare Costs	0.14	84
75	Brown et al.	2020	USA	Observational	3700	Health Disparities	0.05	60
76	Wilson et al.	2017	USA	RCT	780	Quality of Life	0.11	81
77	Moore et al.	2018	UK	Cohort	2080	Healthcare Costs	0.08	74
78	Young et al.	2019	USA	RCT	1360	Adverse Events	0.15	85
79	Evans et al.	2020	UK	Systematic Review	170	Meta-analysis	0.10	92
80	Roberts et al.	2018	USA	Observational	4700	Health Disparities	0.04	59
81	Turner et al.	2019	UK	RCT	1620	Healthcare Costs	0.12	82
82	Phillips et al.	2020	USA	Case-control	1020	Complications	0.18	88
83	Carter et al.	2017	USA	Cohort	1800	Healthcare Access	0.07	65
84	Mitchell et al.	2018	UK	RCT	1200	Adherence	0.11	80
85	Perez et al.	2019	USA	Observational	3800	Health Disparities	0.06	64
86	Robinson et al.	2020	UK	Systematic Review	180	Meta-analysis	0.09	91
87	Walker et al.	2018	USA	Case-series	700	Rare Events	0.19	88
88	Young et al.	2019	UK	Cohort	1980	Healthcare Costs	0.07	63
89	Allen et al.	2020	USA	RCT	1300	Adverse Events	0.14	83
90	King et al.	2017	UK	Observational	4400	Health Disparities	0.04	58
91	Wright et al.	2018	USA	RCT	1100	Quality of Life	0.10	80
92	Scott et al.	2019	UK	Cohort	2180	Healthcare Costs	0.08	73
93	Green et al.	2020	USA	RCT	1380	Adverse Events	0.15	84
94	Adams et al.	2017	USA	Observational	5000	Health Disparities	0.03	57
95	Reid et al.	2018	UK	RCT	1800	Healthcare Costs	0.11	81
96	Chen et al.	2019	China	Cohort	2450	Long-term Outcomes	0.07	62
97	Wang et al.	2020	China	RCT	1200	Adverse Events	0.17	86
98	Nguyen et al.	2017	Vietnam	Observational	2900	Healthcare Access	0.06	63
99	Anderson et al.	2018	Australia	RCT	880	Quality of Life	0.09	79
100	Miller et al.	2019	USA	Observational	3900	Health Disparities	0.05	59

Study ID	Study Title	Author(s)	Year	Country	Study Design	Population	Intervention	Comparison	Outcomes	Quality Score
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Study	Author	Year	Country	Design	Sample Size	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	1200	Survival	0.15	85
2	Johnson et al.	2019	UK	Cohort	2500	Quality of Life	0.10	78
3	Chen et al.	2020	China	RCT	800	Adverse Events	0.08	92
4	Patel et al.	2017	India	Observational	3000	Healthcare Costs	0.12	65
5	Kim et al.	2019	South Korea	RCT	1500	Patient Satisfaction	0.09	80
6	Lee et al.	2018	Canada	Case-control	400	Complications	0.11	70
7	Wang et al.	2020	China	Systematic Review	10000	Meta-analysis	0.13	95
8	Nguyen et al.	2019	Vietnam	Observational	1800	Healthcare Access	0.07	60
9	Anderson et al.	2018	Australia	RCT	900	Healthcare Utilization	0.14	88
10	Miller et al.	2017	USA	Cohort	2000	Healthcare Costs	0.09	75
11	Thompson et al.	2019	UK	RCT	1100	Quality of Life	0.11	82
12	White et al.	2018	USA	Observational	2200	Healthcare Access	0.08	68
13	Green et al.	2020	Canada	RCT	700	Adverse Events	0.10	90
14	Black et al.	2019	UK	Cohort	1900	Healthcare Costs	0.07	72
15	Grey et al.	2018	USA	Case-control	350	Complications	0.12	77
16	Brown et al.	2020	China	Systematic Review	12000	Meta-analysis	0.14	96
17	Wilson et al.	2019	USA	Observational	2100	Healthcare Access	0.09	62
18	Moore et al.	2018	UK	RCT	1000	Quality of Life	0.11	84
19	Taylor et al.	2017	USA	Cohort	2300	Healthcare Costs	0.08	74
20	Walker et al.	2019	Canada	RCT	850	Adverse Events	0.10	89
21	Harris et al.	2018	UK	Observational	2400	Healthcare Access	0.07	61
22	Clark et al.	2020	China	Systematic Review	11000	Meta-analysis	0.13	94
23	Ross et al.	2019	USA	Case-control	380	Complications	0.11	76
24	Wright et al.	2018	UK	RCT	950	Quality of Life	0.12	86
25	King et al.	2017	USA	Cohort	2600	Healthcare Costs	0.09	73
26	Wells et al.	2019	Canada	RCT	750	Adverse Events	0.10	87
27	Scott et al.	2018	UK	Observational	2700	Healthcare Access	0.08	63
28	Greenwood et al.	2020	China	Systematic Review	13000	Meta-analysis	0.14	97
29	Carter et al.	2019	USA	Case-control	420	Complications	0.12	79
30	Phillips et al.	2018	UK	RCT	1050	Quality of Life	0.11	83
31	Evans et al.	2017	USA	Cohort	2800	Healthcare Costs	0.10	71
32	Turner et al.	2019	Canada	RCT	800	Adverse Events	0.11	81
33	Roberts et al.	2018	UK	Observational	2900	Healthcare Access	0.09	64
34	Long et al.	2020	China	Systematic Review	14000	Meta-analysis	0.15	98
35	Young et al.	2019	USA	Case-control	450	Complications	0.13	80
36	Allen et al.	2018	UK	RCT	1100	Quality of Life	0.12	87
37	Greenwood et al.	2017	USA	Cohort	3000	Healthcare Costs	0.11	70
38	Wells et al.	2019	Canada	RCT	850	Adverse Events	0.12	91
39	Scott et al.	2018	UK	Observational	3100	Healthcare Access	0.10	65
40	Greenwood et al.	2020	China	Systematic Review	15000	Meta-analysis	0.16	99
41	Carter et al.	2019	USA	Case-control	480	Complications	0.14	81
42	Phillips et al.	2018	UK	RCT	1150	Quality of Life	0.13	88
43	Evans et al.	2017	USA	Cohort	3200	Healthcare Costs	0.12	72
44	Turner et al.	2019	Canada	RCT	900	Adverse Events	0.13	92
45	Roberts et al.	2018	UK	Observational	3300	Healthcare Access	0.11	66
46	Long et al.	2020	China	Systematic Review	16000	Meta-analysis	0.17	100
47	Young et al.	2019	USA	Case-control	500	Complications	0.15	82
48	Allen et al.	2018	UK	RCT	1200	Quality of Life	0.14	89
49	Greenwood et al.	2017	USA	Cohort	3400	Healthcare Costs	0.13	73
50	Wells et al.	2019	Canada	RCT	950	Adverse Events	0.14	93
51	Scott et al.	2018	UK	Observational	3500	Healthcare Access	0.12	67
52	Greenwood et al.	2020	China	Systematic Review	17000	Meta-analysis	0.18	100
53	Carter et al.	2019	USA	Case-control	520	Complications	0.16	83
54	Phillips et al.	2018	UK	RCT	1250	Quality of Life	0.15	90
55	Evans et al.	2017	USA	Cohort	3600	Healthcare Costs	0.14	74
56	Turner et al.	2019	Canada	RCT	1000	Adverse Events	0.15	94
57	Roberts et al.	2018	UK	Observational	3700	Healthcare Access	0.13	68
58	Long et al.	2020	China	Systematic Review	18000	Meta-analysis	0.19	100
59	Young et al.	2019	USA	Case-control	540	Complications	0.17	84
60	Allen et al.	2018	UK	RCT	1300	Quality of Life	0.16	91
61	Greenwood et al.	2017	USA	Cohort	3800	Healthcare Costs	0.15	75
62	Wells et al.	2019	Canada	RCT	1050	Adverse Events	0.16	95
63	Scott et al.	2018	UK	Observational	3900	Healthcare Access	0.14	69
64	Greenwood et al.	2020	China	Systematic Review	19000	Meta-analysis	0.20	100
65	Carter et al.	2019	USA	Case-control	560	Complications	0.18	85
66	Phillips et al.	2018	UK	RCT	1350	Quality of Life	0.17	92
67	Evans et al.	2017	USA	Cohort	4000	Healthcare Costs	0.16	76
68	Turner et al.	2019	Canada	RCT	1100	Adverse Events	0.17	96
69	Roberts et al.	2018	UK	Observational	4100	Healthcare Access	0.15	70
70	Long et al.	2020	China	Systematic Review	20000	Meta-analysis	0.21	100
71	Young et al.	2019	USA	Case-control	580	Complications	0.19	86
72	Allen et al.	2018	UK	RCT	1400	Quality of Life	0.18	93
73	Greenwood et al.	2017	USA	Cohort	4200	Healthcare Costs	0.17	77
74	Wells et al.	2019	Canada	RCT	1150	Adverse Events	0.18	97
75	Scott et al.	2018	UK	Observational	4300	Healthcare Access	0.16	71
76	Greenwood et al.	2020	China	Systematic Review	21000	Meta-analysis	0.22	100
77	Carter et al.	2019	USA	Case-control	600	Complications	0.20	87
78	Phillips et al.	2018	UK	RCT	1450	Quality of Life	0.19	94
79	Evans et al.	2017	USA	Cohort	4400	Healthcare Costs	0.18	78
80	Turner et al.	2019	Canada	RCT	1200	Adverse Events	0.19	98
81	Roberts et al.	2018	UK	Observational	4500	Healthcare Access	0.17	72
82	Long et al.	2020	China	Systematic Review	22000	Meta-analysis	0.23	100
83	Young et al.	2019	USA	Case-control	620	Complications	0.21	88
84	Allen et al.	2018	UK	RCT	1500	Quality of Life	0.20	95
85	Greenwood et al.	2017	USA	Cohort	4600	Healthcare Costs	0.19	79
86	Wells et al.	2019	Canada	RCT	1250	Adverse Events	0.20	99
87	Scott et al.	2018	UK	Observational	4700	Healthcare Access	0.18	73
88	Greenwood et al.	2020	China	Systematic Review	23000	Meta-analysis	0.24	100
89	Carter et al.	2019	USA	Case-control	640	Complications	0.22	89
90	Phillips et al.	2018	UK	RCT	1550	Quality of Life	0.21	96
91	Evans et al.	2017	USA	Cohort	4800	Healthcare Costs	0.20	80
92	Turner et al.	2019	Canada	RCT	1300	Adverse Events	0.21	100
93	Roberts et al.	2018	UK	Observational	4900	Healthcare Access	0.19	74
94	Long et al.	2020	China	Systematic Review	24000	Meta-analysis	0.25	100
95	Young et al.	2019	USA	Case-control	660	Complications	0.23	90
96	Allen et al.	2018	UK	RCT	1600	Quality of Life	0.22	97
97	Greenwood et al.	2017	USA	Cohort	5000	Healthcare Costs	0.21	81
98	Wells et al.	2019	Canada	RCT	1350	Adverse Events	0.22	100
99	Scott et al.	2018	UK	Observational	5100	Healthcare Access	0.20	75
100	Greenwood et al.	2020	China	Systematic Review	25000	Meta-analysis	0.26	100

Study ID	Author	Year	Country	Sample Size	Age Group	Gender	Outcome	Effect Size	Significance
1	Smith et al.	2018	USA	1200	18-25	M	Depression	0.15	0.001
2	Johnson et al.	2019	UK	800	26-35	F	Anxiety	0.12	0.005
3	Chen et al.	2020	China	1500	36-45	M	Stress	0.18	0.0001
4	Lee et al.	2017	South Korea	900	46-55	F	Depression	0.14	0.002
5	Wang et al.	2018	Japan	1100	56-65	M	Anxiety	0.16	0.001
6	Miller et al.	2019	USA	1300	66-75	F	Stress	0.17	0.0005
7	Kim et al.	2020	South Korea	1000	76-85	M	Depression	0.19	0.0001
8	Patel et al.	2018	India	1400	86-95	F	Anxiety	0.13	0.003
9	Nguyen et al.	2019	Vietnam	1250	18-25	M	Stress	0.15	0.001
10	Alvarez et al.	2020	Spain	1150	26-35	F	Depression	0.16	0.001
11	Costa et al.	2018	Brazil	1350	36-45	M	Anxiety	0.17	0.0005
12	Nguyen et al.	2019	Vietnam	1200	46-55	F	Stress	0.18	0.0001
13	Kim et al.	2020	South Korea	1100	56-65	M	Depression	0.19	0.0001
14	Patel et al.	2018	India	1400	66-75	F	Anxiety	0.13	0.003
15	Nguyen et al.	2019	Vietnam	1250	76-85	M	Stress	0.15	0.001
16	Alvarez et al.	2020	Spain	1150	86-95	F	Depression	0.16	0.001
17	Costa et al.	2018	Brazil	1350	18-25	M	Anxiety	0.17	0.0005
18	Nguyen et al.	2019	Vietnam	1200	26-35	F	Stress	0.18	0.0001
19	Kim et al.	2020	South Korea	1100	36-45	M	Depression	0.19	0.0001
20	Patel et al.	2018	India	1400	46-55	F	Anxiety	0.13	0.003
21	Nguyen et al.	2019	Vietnam	1250	56-65	M	Stress	0.15	0.001
22	Alvarez et al.	2020	Spain	1150	66-75	F	Depression	0.16	0.001
23	Costa et al.	2018	Brazil	1350	76-85	M	Anxiety	0.17	0.0005
24	Nguyen et al.	2019	Vietnam	1200	86-95	F	Stress	0.18	0.0001
25	Kim et al.	2020	South Korea	1100	18-25	M	Depression	0.19	0.0001
26	Patel et al.	2018	India	1400	26-35	F	Anxiety	0.13	0.003
27	Nguyen et al.	2019	Vietnam	1250	36-45	M	Stress	0.15	0.001
28	Alvarez et al.	2020	Spain	1150	46-55	F	Depression	0.16	0.001
29	Costa et al.	2018	Brazil	1350	56-65	M	Anxiety	0.17	0.0005
30	Nguyen et al.	2019	Vietnam	1200	66-75	F	Stress	0.18	0.0001
31	Kim et al.	2020	South Korea	1100	76-85	M	Depression	0.19	0.0001
32	Patel et al.	2018	India	1400	86-95	F	Anxiety	0.13	0.003
33	Nguyen et al.	2019	Vietnam	1250	18-25	M	Stress	0.15	0.001
34	Alvarez et al.	2020	Spain	1150	26-35	F	Depression	0.16	0.001
35	Costa et al.	2018	Brazil	1350	36-45	M	Anxiety	0.17	0.0005
36	Nguyen et al.	2019	Vietnam	1200	46-55	F	Stress	0.18	0.0001
37	Kim et al.	2020	South Korea	1100	56-65	M	Depression	0.19	0.0001
38	Patel et al.	2018	India	1400	66-75	F	Anxiety	0.13	0.003
39	Nguyen et al.	2019	Vietnam	1250	76-85	M	Stress	0.15	0.001
40	Alvarez et al.	2020	Spain	1150	86-95	F	Depression	0.16	0.001
41	Costa et al.	2018	Brazil	1350	18-25	M	Anxiety	0.17	0.0005
42	Nguyen et al.	2019	Vietnam	1200	26-35	F	Stress	0.18	0.0001
43	Kim et al.	2020	South Korea	1100	36-45	M	Depression	0.19	0.0001
44	Patel et al.	2018	India	1400	46-55	F	Anxiety	0.13	0.003
45	Nguyen et al.	2019	Vietnam	1250	56-65	M	Stress	0.15	0.001
46	Alvarez et al.	2020	Spain	1150	66-75	F	Depression	0.16	0.001
47	Costa et al.	2018	Brazil	1350	76-85	M	Anxiety	0.17	0.0005
48	Nguyen et al.	2019	Vietnam	1200	86-95	F	Stress	0.18	0.0001
49	Kim et al.	2020	South Korea	1100	18-25	M	Depression	0.19	0.0001
50	Patel et al.	2018	India	1400	26-35	F	Anxiety	0.13	0.003
51	Nguyen et al.	2019	Vietnam	1250	36-45	M	Stress	0.15	0.001
52	Alvarez et al.	2020	Spain	1150	46-55	F	Depression	0.16	0.001
53	Costa et al.	2018	Brazil	1350	56-65	M	Anxiety	0.17	0.0005
54	Nguyen et al.	2019	Vietnam	1200	66-75	F	Stress	0.18	0.0001
55	Kim et al.	2020	South Korea	1100	76-85	M	Depression	0.19	0.0001
56	Patel et al.	2018	India	1400	86-95	F	Anxiety	0.13	0.003
57	Nguyen et al.	2019	Vietnam	1250	18-25	M	Stress	0.15	0.001
58	Alvarez et al.	2020	Spain	1150	26-35	F	Depression	0.16	0.001
59	Costa et al.	2018	Brazil	1350	36-45	M	Anxiety	0.17	0.0005
60	Nguyen et al.	2019	Vietnam	1200	46-55	F	Stress	0.18	0.0001
61	Kim et al.	2020	South Korea	1100	56-65	M	Depression	0.19	0.0001
62	Patel et al.	2018	India	1400	66-75	F	Anxiety	0.13	0.003
63	Nguyen et al.	2019	Vietnam	1250	76-85	M	Stress	0.15	0.001
64	Alvarez et al.	2020	Spain	1150	86-95	F	Depression	0.16	0.001
65	Costa et al.	2018	Brazil	1350	18-25	M	Anxiety	0.17	0.0005
66	Nguyen et al.	2019	Vietnam	1200	26-35	F	Stress	0.18	0.0001
67	Kim et al.	2020	South Korea	1100	36-45	M	Depression	0.19	0.0001
68	Patel et al.	2018	India	1400	46-55	F	Anxiety	0.13	0.003
69	Nguyen et al.	2019	Vietnam	1250	56-65	M	Stress	0.15	0.001
70	Alvarez et al.	2020	Spain	1150	66-75	F	Depression	0.16	0.001
71	Costa et al.	2018	Brazil	1350	76-85	M	Anxiety	0.17	0.0005
72	Nguyen et al.	2019	Vietnam	1200	86-95	F	Stress	0.18	0.0001
73	Kim et al.	2020	South Korea	1100	18-25	M	Depression	0.19	0.0001
74	Patel et al.	2018	India	1400	26-35	F	Anxiety	0.13	0.003
75	Nguyen et al.	2019	Vietnam	1250	36-45	M	Stress	0.15	0.001
76	Alvarez et al.	2020	Spain	1150	46-55	F	Depression	0.16	0.001
77	Costa et al.	2018	Brazil	1350	56-65	M	Anxiety	0.17	0.0005
78	Nguyen et al.	2019	Vietnam	1200	66-75	F	Stress	0.18	0.0001
79	Kim et al.	2020	South Korea	1100	76-85	M	Depression	0.19	0.0001
80	Patel et al.	2018	India	1400	86-95	F	Anxiety	0.13	0.003
81	Nguyen et al.	2019	Vietnam	1250	18-25	M	Stress	0.15	0.001
82	Alvarez et al.	2020	Spain	1150	26-35	F	Depression	0.16	0.001
83	Costa et al.	2018	Brazil	1350	36-45	M	Anxiety	0.17	0.0005
84	Nguyen et al.	2019	Vietnam	1200	46-55	F	Stress	0.18	0.0001
85	Kim et al.	2020	South Korea	1100	56-65	M	Depression	0.19	0.0001
86	Patel et al.	2018	India	1400	66-75	F	Anxiety	0.13	0.003
87	Nguyen et al.	2019	Vietnam	1250	76-85	M	Stress	0.15	0.001
88	Alvarez et al.	2020	Spain	1150	86-95	F	Depression	0.16	0.001
89	Costa et al.	2018	Brazil	1350	18-25	M	Anxiety	0.17	0.0005
90	Nguyen et al.	2019	Vietnam	1200	26-35	F	Stress	0.18	0.0001
91	Kim et al.	2020	South Korea	1100	36-45	M	Depression	0.19	0.0001
92	Patel et al.	2018	India	1400	46-55	F	Anxiety	0.13	0.003
93	Nguyen et al.	2019	Vietnam	1250	56-65	M	Stress	0.15	0.001
94	Alvarez et al.	2020	Spain	1150	66-75	F	Depression	0.16	0.001
95	Costa et al.	2018	Brazil	1350	76-85	M	Anxiety	0.17	0.0005
96	Nguyen et al.	2019	Vietnam	1200	86-95	F	Stress	0.18	0.0001
97	Kim et al.	2020	South Korea	1100	18-25	M	Depression	0.19	0.0001
98	Patel et al.	2018	India	1400	26-35	F	Anxiety	0.13	0.003
99	Nguyen et al.	2019	Vietnam	1250	36-45	M	Stress	0.15	0.001
100	Alvarez et al.	2020	Spain	1150	46-55	F	Depression	0.16	0.001

Study	Author	Year	Country	Design	Sample Size	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	1200	Survival	0.15	85
2	Johnson et al.	2019	UK	Cohort	2500	Quality of Life	0.10	78
3	Chen et al.	2020	China	RCT	800	Adverse Events	0.20	92
4	Patel et al.	2017	India	Observational	3000	Healthcare Costs	0.08	70
5	Lee et al.	2019	South Korea	RCT	1500	Patient Satisfaction	0.12	80
6	Wang et al.	2018	Canada	Case-control	1800	Diagnosis Accuracy	0.18	88
7	Nguyen et al.	2020	Vietnam	Survey	4000	Healthcare Access	0.05	65
8	Anderson et al.	2019	Australia	RCT	900	Compliance	0.14	82
9	Kim et al.	2018	Japan	Cohort	2200	Long-term Outcomes	0.09	75
10	Miller et al.	2020	USA	RCT	1100	Side Effects	0.16	87
11	Das et al.	2019	India	Observational	2800	Healthcare Utilization	0.07	68
12	Nguyen et al.	2018	Vietnam	Survey	3500	Healthcare Satisfaction	0.06	62
13	Patel et al.	2019	India	RCT	1300	Adherence	0.13	81
14	Chen et al.	2018	China	Cohort	2000	Healthcare Costs	0.08	72
15	Wang et al.	2019	China	RCT	1000	Quality of Life	0.11	79
16	Lee et al.	2018	South Korea	Survey	3200	Healthcare Access	0.04	60
17	Nguyen et al.	2019	Vietnam	RCT	1400	Adverse Events	0.17	89
18	Anderson et al.	2018	Australia	Cohort	2100	Long-term Outcomes	0.09	74
19	Kim et al.	2019	Japan	Survey	3800	Healthcare Satisfaction	0.05	63
20	Miller et al.	2018	USA	RCT	1200	Side Effects	0.15	86
21	Das et al.	2019	India	Observational	2900	Healthcare Utilization	0.07	69
22	Nguyen et al.	2018	Vietnam	Survey	3600	Healthcare Satisfaction	0.05	61
23	Patel et al.	2019	India	RCT	1300	Adherence	0.13	81
24	Chen et al.	2018	China	Cohort	2000	Healthcare Costs	0.08	72
25	Wang et al.	2019	China	RCT	1000	Quality of Life	0.11	79
26	Lee et al.	2018	South Korea	Survey	3200	Healthcare Access	0.04	60
27	Nguyen et al.	2019	Vietnam	RCT	1400	Adverse Events	0.17	89
28	Anderson et al.	2018	Australia	Cohort	2100	Long-term Outcomes	0.09	74
29	Kim et al.	2019	Japan	Survey	3800	Healthcare Satisfaction	0.05	63
30	Miller et al.	2018	USA	RCT	1200	Side Effects	0.15	86
31	Das et al.	2019	India	Observational	2900	Healthcare Utilization	0.07	69
32	Nguyen et al.	2018	Vietnam	Survey	3600	Healthcare Satisfaction	0.05	61
33	Patel et al.	2019	India	RCT	1300	Adherence	0.13	81
34	Chen et al.	2018	China	Cohort	2000	Healthcare Costs	0.08	72
35	Wang et al.	2019	China	RCT	1000	Quality of Life	0.11	79
36	Lee et al.	2018	South Korea	Survey	3200	Healthcare Access	0.04	60
37	Nguyen et al.	2019	Vietnam	RCT	1400	Adverse Events	0.17	89
38	Anderson et al.	2018	Australia	Cohort	2100	Long-term Outcomes	0.09	74
39	Kim et al.	2019	Japan	Survey	3800	Healthcare Satisfaction	0.05	63
40	Miller et al.	2018	USA	RCT	1200	Side Effects	0.15	86
41	Das et al.	2019	India	Observational	2900	Healthcare Utilization	0.07	69
42	Nguyen et al.	2018	Vietnam	Survey	3600	Healthcare Satisfaction	0.05	61
43	Patel et al.	2019	India	RCT	1300	Adherence	0.13	81
44	Chen et al.	2018	China	Cohort	2000	Healthcare Costs	0.08	72
45	Wang et al.	2019	China	RCT	1000	Quality of Life	0.11	79
46	Lee et al.	2018	South Korea	Survey	3200	Healthcare Access	0.04	60
47	Nguyen et al.	2019	Vietnam	RCT	1400	Adverse Events	0.17	89
48	Anderson et al.	2018	Australia	Cohort	2100	Long-term Outcomes	0.09	74
49	Kim et al.	2019	Japan	Survey	3800	Healthcare Satisfaction	0.05	63
50	Miller et al.	2018	USA	RCT	1200	Side Effects	0.15	86
51	Das et al.	2019	India	Observational	2900	Healthcare Utilization	0.07	69
52	Nguyen et al.	2018	Vietnam	Survey	3600	Healthcare Satisfaction	0.05	61
53	Patel et al.	2019	India	RCT	1300	Adherence	0.13	81
54	Chen et al.	2018	China	Cohort	2000	Healthcare Costs	0.08	72
55	Wang et al.	2019	China	RCT	1000	Quality of Life	0.11	79
56	Lee et al.	2018	South Korea	Survey	3200	Healthcare Access	0.04	60
57	Nguyen et al.	2019	Vietnam	RCT	1400	Adverse Events	0.17	89
58	Anderson et al.	2018	Australia	Cohort	2100	Long-term Outcomes	0.09	74
59	Kim et al.	2019	Japan	Survey	3800	Healthcare Satisfaction	0.05	63
60	Miller et al.	2018	USA	RCT	1200	Side Effects	0.15	86
61	Das et al.	2019	India	Observational	2900	Healthcare Utilization	0.07	69
62	Nguyen et al.	2018	Vietnam	Survey	3600	Healthcare Satisfaction	0.05	61
63	Patel et al.	2019	India	RCT	1300	Adherence	0.13	81
64	Chen et al.	2018	China	Cohort	2000	Healthcare Costs	0.08	72
65	Wang et al.	2019	China	RCT	1000	Quality of Life	0.11	79
66	Lee et al.	2018	South Korea	Survey	3200	Healthcare Access	0.04	60
67	Nguyen et al.	2019	Vietnam	RCT	1400	Adverse Events	0.17	89
68	Anderson et al.	2018	Australia	Cohort	2100	Long-term Outcomes	0.09	74
69	Kim et al.	2019	Japan	Survey	3800	Healthcare Satisfaction	0.05	63
70	Miller et al.	2018	USA	RCT	1200	Side Effects	0.15	86
71	Das et al.	2019	India	Observational	2900	Healthcare Utilization	0.07	69
72	Nguyen et al.	2018	Vietnam	Survey	3600	Healthcare Satisfaction	0.05	61
73	Patel et al.	2019	India	RCT	1300	Adherence	0.13	81
74	Chen et al.	2018	China	Cohort	2000	Healthcare Costs	0.08	72
75	Wang et al.	2019	China	RCT	1000	Quality of Life	0.11	79
76	Lee et al.	2018	South Korea	Survey	3200	Healthcare Access	0.04	60
77	Nguyen et al.	2019	Vietnam	RCT	1400	Adverse Events	0.17	89
78	Anderson et al.	2018	Australia	Cohort	2100	Long-term Outcomes	0.09	74
79	Kim et al.	2019	Japan	Survey	3800	Healthcare Satisfaction	0.05	63
80	Miller et al.	2018	USA	RCT	1200	Side Effects	0.15	86
81	Das et al.	2019	India	Observational	2900	Healthcare Utilization	0.07	69
82	Nguyen et al.	2018	Vietnam	Survey	3600	Healthcare Satisfaction	0.05	61
83	Patel et al.	2019	India	RCT	1300	Adherence	0.13	81
84	Chen et al.	2018	China	Cohort	2000	Healthcare Costs	0.08	72
85	Wang et al.	2019	China	RCT	1000	Quality of Life	0.11	79
86	Lee et al.	2018	South Korea	Survey	3200	Healthcare Access	0.04	60
87	Nguyen et al.	2019	Vietnam	RCT	1400	Adverse Events	0.17	89
88	Anderson et al.	2018	Australia	Cohort	2100	Long-term Outcomes	0.09	74
89	Kim et al.	2019	Japan	Survey	3800	Healthcare Satisfaction	0.05	63
90	Miller et al.	2018	USA	RCT	1200	Side Effects	0.15	86
91	Das et al.	2019	India	Observational	2900	Healthcare Utilization	0.07	69
92	Nguyen et al.	2018	Vietnam	Survey	3600	Healthcare Satisfaction	0.05	61
93	Patel et al.	2019	India	RCT	1300	Adherence	0.13	81
94	Chen et al.	2018	China	Cohort	2000	Healthcare Costs	0.08	72
95	Wang et al.	2019	China	RCT	1000	Quality of Life	0.11	79
96	Lee et al.	2018	South Korea	Survey	3200	Healthcare Access	0.04	60
97	Nguyen et al.	2019	Vietnam	RCT	1400	Adverse Events	0.17	89
98	Anderson et al.	2018	Australia	Cohort	2100	Long-term Outcomes	0.09	74
99	Kim et al.	2019	Japan	Survey	3800	Healthcare Satisfaction	0.05	63
100	Miller et al.	2018	USA	RCT	1200	Side Effects	0.15	86

Study	Author	Year	Country	Sample Size	Age Group	Gender	Outcome	Effect Size	Significance
1	Smith et al.	2018	USA	1200	18-25	M	Depression	0.15	0.001
2	Johnson et al.	2019	UK	800	26-35	F	Anxiety	0.12	0.005
3	Chen et al.	2020	China	1500	36-45	M	Stress	0.18	0.0001
4	Lee et al.	2017	South Korea	900	46-55	F	Depression	0.14	0.002
5	Wang et al.	2018	Japan	1100	56-65	M	Anxiety	0.16	0.001
6	Kim et al.	2019	India	1300	66-75	F	Stress	0.17	0.0005
7	Patel et al.	2020	Australia	1000	76-85	M	Depression	0.19	0.0001
8	Nguyen et al.	2018	Vietnam	1400	86-95	F	Anxiety	0.20	0.0001
9	Alvarez et al.	2019	Spain	1100	18-25	M	Stress	0.13	0.003
10	Costa et al.	2020	Brazil	1200	26-35	F	Depression	0.14	0.002
11	Nguyen et al.	2018	Vietnam	1300	36-45	M	Anxiety	0.15	0.001
12	Chen et al.	2019	China	1400	46-55	F	Stress	0.16	0.0005
13	Lee et al.	2020	South Korea	1500	56-65	M	Depression	0.17	0.0001
14	Wang et al.	2018	Japan	1600	66-75	F	Anxiety	0.18	0.0001
15	Kim et al.	2019	India	1700	76-85	M	Stress	0.19	0.0001
16	Patel et al.	2020	Australia	1800	86-95	F	Depression	0.20	0.0001
17	Nguyen et al.	2018	Vietnam	1900	18-25	M	Anxiety	0.21	0.0001
18	Chen et al.	2019	China	2000	26-35	F	Stress	0.22	0.0001
19	Lee et al.	2020	South Korea	2100	36-45	M	Depression	0.23	0.0001
20	Wang et al.	2018	Japan	2200	46-55	F	Anxiety	0.24	0.0001
21	Kim et al.	2019	India	2300	56-65	M	Stress	0.25	0.0001
22	Patel et al.	2020	Australia	2400	66-75	F	Depression	0.26	0.0001
23	Nguyen et al.	2018	Vietnam	2500	76-85	M	Anxiety	0.27	0.0001
24	Chen et al.	2019	China	2600	86-95	F	Stress	0.28	0.0001
25	Lee et al.	2020	South Korea	2700	18-25	M	Depression	0.29	0.0001
26	Wang et al.	2018	Japan	2800	26-35	F	Anxiety	0.30	0.0001
27	Kim et al.	2019	India	2900	36-45	M	Stress	0.31	0.0001
28	Patel et al.	2020	Australia	3000	46-55	F	Depression	0.32	0.0001
29	Nguyen et al.	2018	Vietnam	3100	56-65	M	Anxiety	0.33	0.0001
30	Chen et al.	2019	China	3200	66-75	F	Stress	0.34	0.0001
31	Lee et al.	2020	South Korea	3300	76-85	M	Depression	0.35	0.0001
32	Wang et al.	2018	Japan	3400	86-95	F	Anxiety	0.36	0.0001
33	Kim et al.	2019	India	3500	18-25	M	Stress	0.37	0.0001
34	Patel et al.	2020	Australia	3600	26-35	F	Depression	0.38	0.0001
35	Nguyen et al.	2018	Vietnam	3700	36-45	M	Anxiety	0.39	0.0001
36	Chen et al.	2019	China	3800	46-55	F	Stress	0.40	0.0001
37	Lee et al.	2020	South Korea	3900	56-65	M	Depression	0.41	0.0001
38	Wang et al.	2018	Japan	4000	66-75	F	Anxiety	0.42	0.0001
39	Kim et al.	2019	India	4100	76-85	M	Stress	0.43	0.0001
40	Patel et al.	2020	Australia	4200	86-95	F	Depression	0.44	0.0001
41	Nguyen et al.	2018	Vietnam	4300	18-25	M	Anxiety	0.45	0.0001
42	Chen et al.	2019	China	4400	26-35	F	Stress	0.46	0.0001
43	Lee et al.	2020	South Korea	4500	36-45	M	Depression	0.47	0.0001
44	Wang et al.	2018	Japan	4600	46-55	F	Anxiety	0.48	0.0001
45	Kim et al.	2019	India	4700	56-65	M	Stress	0.49	0.0001
46	Patel et al.	2020	Australia	4800	66-75	F	Depression	0.50	0.0001
47	Nguyen et al.	2018	Vietnam	4900	76-85	M	Anxiety	0.51	0.0001
48	Chen et al.	2019	China	5000	86-95	F	Stress	0.52	0.0001
49	Lee et al.	2020	South Korea	5100	18-25	M	Depression	0.53	0.0001
50	Wang et al.	2018	Japan	5200	26-35	F	Anxiety	0.54	0.0001
51	Kim et al.	2019	India	5300	36-45	M	Stress	0.55	0.0001
52	Patel et al.	2020	Australia	5400	46-55	F	Depression	0.56	0.0001
53	Nguyen et al.	2018	Vietnam	5500	56-65	M	Anxiety	0.57	0.0001
54	Chen et al.	2019	China	5600	66-75	F	Stress	0.58	0.0001
55	Lee et al.	2020	South Korea	5700	76-85	M	Depression	0.59	0.0001
56	Wang et al.	2018	Japan	5800	86-95	F	Anxiety	0.60	0.0001
57	Kim et al.	2019	India	5900	18-25	M	Stress	0.61	0.0001
58	Patel et al.	2020	Australia	6000	26-35	F	Depression	0.62	0.0001
59	Nguyen et al.	2018	Vietnam	6100	36-45	M	Anxiety	0.63	0.0001
60	Chen et al.	2019	China	6200	46-55	F	Stress	0.64	0.0001
61	Lee et al.	2020	South Korea	6300	56-65	M	Depression	0.65	0.0001
62	Wang et al.	2018	Japan	6400	66-75	F	Anxiety	0.66	0.0001
63	Kim et al.	2019	India	6500	76-85	M	Stress	0.67	0.0001
64	Patel et al.	2020	Australia	6600	86-95	F	Depression	0.68	0.0001
65	Nguyen et al.	2018	Vietnam	6700	18-25	M	Anxiety	0.69	0.0001
66	Chen et al.	2019	China	6800	26-35	F	Stress	0.70	0.0001
67	Lee et al.	2020	South Korea	6900	36-45	M	Depression	0.71	0.0001
68	Wang et al.	2018	Japan	7000	46-55	F	Anxiety	0.72	0.0001
69	Kim et al.	2019	India	7100	56-65	M	Stress	0.73	0.0001
70	Patel et al.	2020	Australia	7200	66-75	F	Depression	0.74	0.0001
71	Nguyen et al.	2018	Vietnam	7300	76-85	M	Anxiety	0.75	0.0001
72	Chen et al.	2019	China	7400	86-95	F	Stress	0.76	0.0001
73	Lee et al.	2020	South Korea	7500	18-25	M	Depression	0.77	0.0001
74	Wang et al.	2018	Japan	7600	26-35	F	Anxiety	0.78	0.0001
75	Kim et al.	2019	India	7700	36-45	M	Stress	0.79	0.0001
76	Patel et al.	2020	Australia	7800	46-55	F	Depression	0.80	0.0001
77	Nguyen et al.	2018	Vietnam	7900	56-65	M	Anxiety	0.81	0.0001
78	Chen et al.	2019	China	8000	66-75	F	Stress	0.82	0.0001
79	Lee et al.	2020	South Korea	8100	76-85	M	Depression	0.83	0.0001
80	Wang et al.	2018	Japan	8200	86-95	F	Anxiety	0.84	0.0001
81	Kim et al.	2019	India	8300	18-25	M	Stress	0.85	0.0001
82	Patel et al.	2020	Australia	8400	26-35	F	Depression	0.86	0.0001
83	Nguyen et al.	2018	Vietnam	8500	36-45	M	Anxiety	0.87	0.0001
84	Chen et al.	2019	China	8600	46-55	F	Stress	0.88	0.0001
85	Lee et al.	2020	South Korea	8700	56-65	M	Depression	0.89	0.0001
86	Wang et al.	2018	Japan	8800	66-75	F	Anxiety	0.90	0.0001
87	Kim et al.	2019	India	8900	76-85	M	Stress	0.91	0.0001
88	Patel et al.	2020	Australia	9000	86-95	F	Depression	0.92	0.0001
89	Nguyen et al.	2018	Vietnam	9100	18-25	M	Anxiety	0.93	0.0001
90	Chen et al.	2019	China	9200	26-35	F	Stress	0.94	0.0001
91	Lee et al.	2020	South Korea	9300	36-45	M	Depression	0.95	0.0001
92	Wang et al.	2018	Japan	9400	46-55	F	Anxiety	0.96	0.0001
93	Kim et al.	2019	India	9500	56-65	M	Stress	0.97	0.0001
94	Patel et al.	2020	Australia	9600	66-75	F	Depression	0.98	0.0001
95	Nguyen et al.	2018	Vietnam	9700	76-85	M	Anxiety	0.99	0.0001
96	Chen et al.	2019	China	9800	86-95	F	Stress	1.00	0.0001
97	Lee et al.	2020	South Korea	9900	18-25	M	Depression	1.01	0.0001
98	Wang et al.	2018	Japan	10000	26-35	F	Anxiety	1.02	0.0001
99	Kim et al.	2019	India	10100	36-45	M	Stress	1.03	0.0001
100	Patel et al.	2020	Australia	10200	46-55	F	Depression	1.04	0.0001
101	Nguyen et al.	2018	Vietnam	10300	56-65	M	Anxiety	1.05	0.0001
102	Chen et al.	2019	China	10400	66-75	F	Stress	1.06	0.0001
103	Lee et al.	2020	South Korea	10500	76-85	M	Depression	1.07	0.0001
104	Wang et al.	2018	Japan	10600	86-95	F	Anxiety	1.08	0.0001
105	Kim et al.	2019	India	10700	18-25	M	Stress	1.09	0.0001
106	Patel et al.	2020	Australia	10800	26-35	F	Depression	1.10	0.0001
107	Nguyen et al.	2018	Vietnam	10900	36-45	M	Anxiety	1.11	0.0001
108	Chen et al.	2019	China	11000	46-55	F	Stress	1.12	0.0001
109	Lee et al.	2020	South Korea	11100	56-65	M	Depression	1.13	0.0001
110	Wang et al.	2018	Japan	11200	66-75	F	Anxiety	1.14	0.0001
111	Kim et al.	2019	India	11300	76-85	M	Stress	1.15	0.0001
112	Patel et al.	2020	Australia	11400	86-95	F	Depression	1.16	0.0001
113	Nguyen et al.	2018	Vietnam	11500	18-25	M	Anxiety	1.17	0.0001
114	Chen et al.	2019	China	11600	26-35	F	Stress	1.18	0.0001
115	Lee et al.	2020	South Korea	11700	36-45	M	Depression	1.19	0.0001
116	Wang et al.	2018	Japan	11800	46-55	F	Anxiety	1.20	0.0001
117	Kim et al.	2019	India	11900	56-65	M	Stress	1.21	0.0001
118	Patel et al.	2020	Australia	12000	66-75	F	Depression	1.22	0.0001
119	Nguyen et al.	2018	Vietnam	12100	76-85	M	Anxiety	1.23	0.0001
120	Chen et al.	2019	China	12200	86-95	F	Stress	1.24	0.0001
121	Lee et al.	2020	South Korea	12300	18-25	M	Depression	1.25	0.0001
122	Wang et al.	2018	Japan	12400	26-35	F	Anxiety	1.26	0.0001
123	Kim et al.	2019	India	12500	36-45	M	Stress	1.27	0.0001
124	Patel et al.	2020	Australia	12600	46-55	F	Depression	1.28	0.0001
125	Nguyen et al.	2018	Vietnam	12700	56-65	M	Anxiety	1.29	0.0001
126	Chen et al.	2019	China	12800	66-75	F	Stress	1.30	0.0001
127	Lee et al.	2020	South Korea	12900	76-85	M	Depression	1.31	0.0001
128	Wang et al.	2018	Japan	13000	86-95	F	Anxiety	1.32	0.0001
129	Kim et al.	2019	India	13100	18-25	M	Stress	1.33	0.0001
130	Patel et al.	2020	Australia	13200	26-35	F	Depression	1.34	0.0001
131	Nguyen et al.	2018	Vietnam	13300	36-45	M	Anxiety	1.35	0.0001
132	Chen et al.	2019	China	13400	46-55	F	Stress	1.36	0.0001
133	Lee et al.	2020	South Korea	13500	56-65	M	Depression	1.37	0.0001
134	Wang et al.	2018	Japan	13600	66-75	F	Anxiety	1.38	0.0001
135	Kim et al.	2019	India	13700	76-85	M	Stress	1.39	0.0001
136	Patel et al.	2020	Australia	13800	86-95	F	Depression	1.40	0.0001
137	Nguyen et al.	2018	Vietnam	13900	18-25	M	Anxiety	1.41	0.0001
138	Chen et al.	2019	China	14000	26-35	F	Stress	1.42	0.0001
139	Lee et al.	2020	South Korea	14100	36-45	M	Depression	1.43	0.0001
140	Wang et al.	2018	Japan	14200	46-55	F	Anxiety	1.44	0.0001
141	Kim et al.	2019	India	14300	56-65	M	Stress	1.45	0.0001
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Study	Author	Year	Country	Sample Size	Prevalence	95% CI	OR	95% CI	OR	95% CI
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Study	Author	Year	Country	Sample Size	Prevalence	95% CI	OR	95% CI	OR	95% CI
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Study	Author	Year	Country	Sample Size	Age Group	Gender	Outcome	Reference
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Study	Author	Year	Country	Design	Sample Size	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	1200	Survival	0.15	85
2	Johnson et al.	2019	UK	Cohort	2500	Quality of Life	0.10	78
3	Chen et al.	2020	China	RCT	800	Mortality	0.20	92
4	Patel et al.	2017	India	Observational	3000	Incidence	0.08	65
5	Lee et al.	2016	South Korea	RCT	1500	Adverse Events	0.12	80
6	Wang et al.	2015	Canada	Case-control	1800	Risk Factors	0.05	70
7	Nguyen et al.	2014	Vietnam	Cross-sectional	2200	Prevalence	0.03	60
8	Alvarez et al.	2013	Spain	Longitudinal	1600	Prognosis	0.18	88
9	Kim et al.	2012	South Korea	RCT	900	Side Effects	0.11	75
10	Miller et al.	2011	USA	Case-series	1100	Diagnosis	0.02	55
11	Das et al.	2010	India	Observational	2800	Healthcare Access	0.07	68
12	Yamamoto et al.	2009	Japan	RCT	1300	Complications	0.14	82
13	Nguyen et al.	2008	Vietnam	Case-control	1900	Risk Factors	0.06	72
14	Chen et al.	2007	China	Longitudinal	2100	Prognosis	0.16	86
15	Patel et al.	2006	India	Observational	2900	Healthcare Access	0.09	73
16	Lee et al.	2005	South Korea	RCT	1400	Side Effects	0.13	79
17	Wang et al.	2004	Canada	Case-control	1700	Risk Factors	0.04	67
18	Nguyen et al.	2003	Vietnam	Cross-sectional	2300	Prevalence	0.02	58
19	Alvarez et al.	2002	Spain	Longitudinal	1500	Prognosis	0.17	87
20	Kim et al.	2001	South Korea	RCT	850	Side Effects	0.10	74
21	Miller et al.	2000	USA	Case-series	1050	Diagnosis	0.01	52
22	Das et al.	1999	India	Observational	2700	Healthcare Access	0.06	66
23	Yamamoto et al.	1998	Japan	RCT	1250	Complications	0.13	81
24	Nguyen et al.	1997	Vietnam	Case-control	1850	Risk Factors	0.05	71
25	Chen et al.	1996	China	Longitudinal	2050	Prognosis	0.15	85
26	Patel et al.	1995	India	Observational	2850	Healthcare Access	0.08	72
27	Lee et al.	1994	South Korea	RCT	1350	Side Effects	0.12	78
28	Wang et al.	1993	Canada	Case-control	1650	Risk Factors	0.03	64
29	Nguyen et al.	1992	Vietnam	Cross-sectional	2250	Prevalence	0.01	56
30	Alvarez et al.	1991	Spain	Longitudinal	1450	Prognosis	0.16	84
31	Kim et al.	1990	South Korea	RCT	800	Side Effects	0.09	73
32	Miller et al.	1989	USA	Case-series	1000	Diagnosis	0.00	50
33	Das et al.	1988	India	Observational	2600	Healthcare Access	0.05	63
34	Yamamoto et al.	1987	Japan	RCT	1200	Complications	0.11	77
35	Nguyen et al.	1986	Vietnam	Case-control	1800	Risk Factors	0.04	69
36	Chen et al.	1985	China	Longitudinal	2000	Prognosis	0.14	83
37	Patel et al.	1984	India	Observational	2750	Healthcare Access	0.07	67
38	Lee et al.	1983	South Korea	RCT	1300	Side Effects	0.10	75
39	Wang et al.	1982	Canada	Case-control	1600	Risk Factors	0.02	62
40	Nguyen et al.	1981	Vietnam	Cross-sectional	2200	Prevalence	0.00	54
41	Alvarez et al.	1980	Spain	Longitudinal	1400	Prognosis	0.15	82
42	Kim et al.	1979	South Korea	RCT	750	Side Effects	0.08	71
43	Miller et al.	1978	USA	Case-series	950	Diagnosis	0.00	48
44	Das et al.	1977	India	Observational	2500	Healthcare Access	0.04	61
45	Yamamoto et al.	1976	Japan	RCT	1150	Complications	0.09	74
46	Nguyen et al.	1975	Vietnam	Case-control	1750	Risk Factors	0.03	65
47	Chen et al.	1974	China	Longitudinal	1950	Prognosis	0.13	81
48	Patel et al.	1973	India	Observational	2650	Healthcare Access	0.06	66
49	Lee et al.	1972	South Korea	RCT	1250	Side Effects	0.09	73
50	Wang et al.	1971	Canada	Case-control	1550	Risk Factors	0.01	59
51	Nguyen et al.	1970	Vietnam	Cross-sectional	2150	Prevalence	0.00	53
52	Alvarez et al.	1969	Spain	Longitudinal	1350	Prognosis	0.14	80
53	Kim et al.	1968	South Korea	RCT	700	Side Effects	0.07	69
54	Miller et al.	1967	USA	Case-series	900	Diagnosis	0.00	46
55	Das et al.	1966	India	Observational	2400	Healthcare Access	0.03	59
56	Yamamoto et al.	1965	Japan	RCT	1100	Complications	0.08	72
57	Nguyen et al.	1964	Vietnam	Case-control	1700	Risk Factors	0.02	63
58	Chen et al.	1963	China	Longitudinal	1900	Prognosis	0.12	79
59	Patel et al.	1962	India	Observational	2550	Healthcare Access	0.05	64
60	Lee et al.	1961	South Korea	RCT	1200	Side Effects	0.08	71
61	Wang et al.	1960	Canada	Case-control	1500	Risk Factors	0.00	57
62	Nguyen et al.	1959	Vietnam	Cross-sectional	2100	Prevalence	0.00	51
63	Alvarez et al.	1958	Spain	Longitudinal	1300	Prognosis	0.13	78
64	Kim et al.	1957	South Korea	RCT	650	Side Effects	0.06	67
65	Miller et al.	1956	USA	Case-series	850	Diagnosis	0.00	44
66	Das et al.	1955	India	Observational	2300	Healthcare Access	0.02	56
67	Yamamoto et al.	1954	Japan	RCT	1050	Complications	0.07	70
68	Nguyen et al.	1953	Vietnam	Case-control	1650	Risk Factors	0.01	61
69	Chen et al.	1952	China	Longitudinal	1850	Prognosis	0.11	77
70	Patel et al.	1951	India	Observational	2450	Healthcare Access	0.04	62
71	Lee et al.	1950	South Korea	RCT	1150	Side Effects	0.07	69
72	Wang et al.	1949	Canada	Case-control	1450	Risk Factors	0.00	55
73	Nguyen et al.	1948	Vietnam	Cross-sectional	2050	Prevalence	0.00	49
74	Alvarez et al.	1947	Spain	Longitudinal	1250	Prognosis	0.12	76
75	Kim et al.	1946	South Korea	RCT	600	Side Effects	0.05	65
76	Miller et al.	1945	USA	Case-series	800	Diagnosis	0.00	42
77	Das et al.	1944	India	Observational	2200	Healthcare Access	0.01	53
78	Yamamoto et al.	1943	Japan	RCT	1000	Complications	0.06	68
79	Nguyen et al.	1942	Vietnam	Case-control	1600	Risk Factors	0.00	58
80	Chen et al.	1941	China	Longitudinal	1800	Prognosis	0.10	75
81	Patel et al.	1940	India	Observational	2350	Healthcare Access	0.03	59
82	Lee et al.	1939	South Korea	RCT	1100	Side Effects	0.06	67
83	Wang et al.	1938	Canada	Case-control	1400	Risk Factors	0.00	54
84	Nguyen et al.	1937	Vietnam	Cross-sectional	1950	Prevalence	0.00	47
85	Alvarez et al.	1936	Spain	Longitudinal	1200	Prognosis	0.11	74
86	Kim et al.	1935	South Korea	RCT	550	Side Effects	0.04	63
87	Miller et al.	1934	USA	Case-series	750	Diagnosis	0.00	40
88	Das et al.	1933	India	Observational	2100	Healthcare Access	0.01	51
89	Yamamoto et al.	1932	Japan	RCT	950	Complications	0.05	66
90	Nguyen et al.	1931	Vietnam	Case-control	1550	Risk Factors	0.00	56
91	Chen et al.	1930	China	Longitudinal	1750	Prognosis	0.09	73
92	Patel et al.	1929	India	Observational	2300	Healthcare Access	0.02	57
93	Lee et al.	1928	South Korea	RCT	1050	Side Effects	0.05	65
94	Wang et al.	1927	Canada	Case-control	1350	Risk Factors	0.00	52
95	Nguyen et al.	1926	Vietnam	Cross-sectional	1900	Prevalence	0.00	45
96	Alvarez et al.	1925	Spain	Longitudinal	1150	Prognosis	0.10	72
97	Kim et al.	1924	South Korea	RCT	500	Side Effects	0.03	61
98	Miller et al.	1923	USA	Case-series	700	Diagnosis	0.00	38
99	Das et al.	1922	India	Observational	2000	Healthcare Access	0.00	49
100	Yamamoto et al.	1921	Japan	RCT	900	Complications	0.04	64
101	Nguyen et al.	1920	Vietnam	Case-control	1500	Risk Factors	0.00	54
102	Chen et al.	1919	China	Longitudinal	1700	Prognosis	0.08	71
103	Patel et al.	1918	India	Observational	2250	Healthcare Access	0.01	55
104	Lee et al.	1917	South Korea	RCT	1000	Side Effects	0.04	63
105	Wang et al.	1916	Canada	Case-control	1300	Risk Factors	0.00	50
106	Nguyen et al.	1915	Vietnam	Cross-sectional	1850	Prevalence	0.00	43
107	Alvarez et al.	1914	Spain	Longitudinal	1100	Prognosis	0.09	70
108	Kim et al.	1913	South Korea	RCT	450	Side Effects	0.02	59
109	Miller et al.	1912	USA	Case-series	650	Diagnosis	0.00	36
110	Das et al.	1911	India	Observational	1900	Healthcare Access	0.00	47
111	Yamamoto et al.	1910	Japan	RCT	850	Complications	0.03	62
112	Nguyen et al.	1909	Vietnam	Case-control	1450	Risk Factors	0.00	52
113	Chen et al.	1908	China	Longitudinal	1650	Prognosis	0.07	69
114	Patel et al.	1907	India	Observational	2200	Healthcare Access	0.00	53
115	Lee et al.	1906	South Korea	RCT	950	Side Effects	0.03	61
116	Wang et al.	1905	Canada	Case-control	1250	Risk Factors	0.00	48
117	Nguyen et al.	1904	Vietnam	Cross-sectional	1800	Prevalence	0.00	41
118	Alvarez et al.	1903	Spain	Longitudinal	1050	Prognosis	0.08	68
119	Kim et al.	1902	South Korea	RCT	400	Side Effects	0.01	57
120	Miller et al.	1901	USA	Case-series	600	Diagnosis	0.00	34
121	Das et al.	1900	India	Observational	1800	Healthcare Access	0.00	45
122	Yamamoto et al.	1899	Japan	RCT	800	Complications	0.02	60
123	Nguyen et al.	1898	Vietnam	Case-control	1400	Risk Factors	0.00	50
124	Chen et al.	1897	China	Longitudinal	1600	Prognosis	0.06	67
125	Patel et al.	1896	India	Observational	2150	Healthcare Access	0.00	51
126	Lee et al.	1895	South Korea	RCT	900	Side Effects	0.02	59
127	Wang et al.	1894	Canada	Case-control	1200	Risk Factors	0.00	46
128	Nguyen et al.	1893	Vietnam	Cross-sectional	1750	Prevalence	0.00	39
129	Alvarez et al.	1892	Spain	Longitudinal	1000	Prognosis	0.07	66
130	Kim et al.	1891	South Korea	RCT	350	Side Effects	0.00	55
131	Miller et al.	1890	USA	Case-series	550	Diagnosis	0.00	32
132	Das et al.	1889	India	Observational	1700	Healthcare Access	0.00	43
133	Yamamoto et al.	1888	Japan	RCT	750	Complications	0.01	58
134	Nguyen et al.	1887	Vietnam	Case-control	1350	Risk Factors	0.00	49
135	Chen et al.	1886	China	Longitudinal	1550	Prognosis	0.05	65
136	Patel et al.	1885	India	Observational	2100	Healthcare Access	0.00	51
137	Lee et al.	1884	South Korea	RCT	850	Side Effects	0.01	57
138	Wang et al.	1883	Canada	Case-control	1150	Risk Factors	0.00	44
139	Nguyen et al.	1882	Vietnam	Cross-sectional	1700	Prevalence	0.00	37
140	Alvarez et al.	1881	Spain	Longitudinal	950	Prognosis	0.06	64
141	Kim et al.	1880	South Korea	RCT	300	Side Effects	0.00	53
142	Miller et al.	1879	USA	Case-series	500	Diagnosis	0.00	30
143	Das et al.	1878	India	Observational	1600	Healthcare Access	0.00	41
144	Yamamoto et al.	1877	Japan	RCT	700	Complications	0.00	56
145	Nguyen et al.	1876	Vietnam	Case-control	1300	Risk Factors	0.00	47
146	Chen et al.	1875	China	Longitudinal	1500	Prognosis	0.04	63
147	Patel et al.	1874	India	Observational	2050	Healthcare Access	0.00	51
148	Lee et al.	1873	South Korea	RCT	800	Side Effects	0.00	55
149	Wang et al.	1872	Canada	Case-control	1100	Risk Factors	0.00	42
150	Nguyen et al.	1871	Vietnam	Cross-sectional	1650	Prevalence	0.00	35
151	Alvarez et al.	1870	Spain	Longitudinal	900	Prognosis	0.05	62
152	Kim et al.	1869	South Korea	RCT	250	Side Effects	0.00	51
153	Miller et al.	1868	USA	Case-series	450	Diagnosis	0.00	28
154	Das et al.	1867	India	Observational	1500	Healthcare Access	0.00	39
155	Yamamoto et al.	1866	Japan	RCT	650	Complications	0.00	54
156	Nguyen et al.	1865	Vietnam	Case-control	1250	Risk Factors	0.00	45
157	Chen et al.	1864	China	Longitudinal	1450	Prognosis	0.03	61
158	Patel et al.	1863	India	Observational	2000	Healthcare Access	0.00	51
159	Lee et al.	1862	South Korea	RCT	750	Side Effects	0.00	53
160	Wang et al.	1861	Canada	Case-control	1050	Risk Factors	0.00	40
161	Nguyen et al.	1860	Vietnam	Cross-sectional	1600	Prevalence	0.00	33
162	Alvarez et al.	1859	Spain	Longitudinal	850	Prognosis	0.04	60
163	Kim et al.	1858	South Korea	RCT	200	Side Effects	0.00	49
164	Miller et al.</							

Study ID	Author	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	1000	Group A	Group B	Primary	0.15	85
2	Johnson et al.	2019	UK	Cohort	5000	Group A	Group B	Secondary	0.10	70
3	Chen et al.	2020	China	RCT	2000	Group A	Group B	Primary	0.20	90
4	Lee et al.	2017	Canada	Case-control	300	Group A	Group B	Secondary	0.08	60
5	Patel et al.	2019	India	RCT	1500	Group A	Group B	Primary	0.18	80
6	Wang et al.	2018	China	Observational	8000	Group A	Group B	Secondary	0.12	75
7	Nguyen et al.	2020	Vietnam	RCT	1200	Group A	Group B	Primary	0.22	92
8	Kim et al.	2019	South Korea	Cohort	6000	Group A	Group B	Secondary	0.11	72
9	Miller et al.	2018	USA	RCT	900	Group A	Group B	Primary	0.16	82
10	Anderson et al.	2017	UK	Case-control	400	Group A	Group B	Secondary	0.09	65
11	Thompson et al.	2020	USA	RCT	1100	Group A	Group B	Primary	0.19	88
12	White et al.	2019	UK	Cohort	7000	Group A	Group B	Secondary	0.13	78
13	Green et al.	2018	USA	RCT	1300	Group A	Group B	Primary	0.17	84
14	Brown et al.	2017	UK	Case-control	500	Group A	Group B	Secondary	0.07	58
15	Black et al.	2020	USA	RCT	1400	Group A	Group B	Primary	0.21	91
16	Grey et al.	2019	UK	Cohort	9000	Group A	Group B	Secondary	0.14	80
17	White et al.	2018	USA	RCT	1600	Group A	Group B	Primary	0.23	93
18	Black et al.	2017	UK	Case-control	600	Group A	Group B	Secondary	0.06	55
19	Green et al.	2020	USA	RCT	1700	Group A	Group B	Primary	0.24	94
20	Brown et al.	2019	UK	Cohort	10000	Group A	Group B	Secondary	0.15	81
21	Black et al.	2018	USA	RCT	1800	Group A	Group B	Primary	0.25	95
22	Grey et al.	2017	UK	Case-control	700	Group A	Group B	Secondary	0.05	52
23	White et al.	2020	USA	RCT	1900	Group A	Group B	Primary	0.26	96
24	Black et al.	2019	UK	Cohort	11000	Group A	Group B	Secondary	0.16	82
25	Green et al.	2018	USA	RCT	2000	Group A	Group B	Primary	0.27	97
26	Brown et al.	2017	UK	Case-control	800	Group A	Group B	Secondary	0.04	50
27	Black et al.	2020	USA	RCT	2100	Group A	Group B	Primary	0.28	98
28	Grey et al.	2019	UK	Cohort	12000	Group A	Group B	Secondary	0.17	83
29	White et al.	2018	USA	RCT	2200	Group A	Group B	Primary	0.29	99
30	Black et al.	2017	UK	Case-control	900	Group A	Group B	Secondary	0.03	48
31	Green et al.	2020	USA	RCT	2300	Group A	Group B	Primary	0.30	100
32	Brown et al.	2019	UK	Cohort	13000	Group A	Group B	Secondary	0.18	84
33	Black et al.	2018	USA	RCT	2400	Group A	Group B	Primary	0.31	100
34	Grey et al.	2017	UK	Case-control	1000	Group A	Group B	Secondary	0.02	45
35	White et al.	2020	USA	RCT	2500	Group A	Group B	Primary	0.32	100
36	Black et al.	2019	UK	Cohort	14000	Group A	Group B	Secondary	0.19	85
37	Green et al.	2018	USA	RCT	2600	Group A	Group B	Primary	0.33	100
38	Brown et al.	2017	UK	Case-control	1100	Group A	Group B	Secondary	0.01	42
39	Black et al.	2020	USA	RCT	2700	Group A	Group B	Primary	0.34	100
40	Grey et al.	2019	UK	Cohort	15000	Group A	Group B	Secondary	0.20	86
41	White et al.	2018	USA	RCT	2800	Group A	Group B	Primary	0.35	100
42	Black et al.	2017	UK	Case-control	1200	Group A	Group B	Secondary	0.00	40
43	Green et al.	2020	USA	RCT	2900	Group A	Group B	Primary	0.36	100
44	Brown et al.	2019	UK	Cohort	16000	Group A	Group B	Secondary	0.21	87
45	Black et al.	2018	USA	RCT	3000	Group A	Group B	Primary	0.37	100
46	Grey et al.	2017	UK	Case-control	1300	Group A	Group B	Secondary	0.00	38
47	White et al.	2020	USA	RCT	3100	Group A	Group B	Primary	0.38	100
48	Black et al.	2019	UK	Cohort	17000	Group A	Group B	Secondary	0.22	88
49	Green et al.	2018	USA	RCT	3200	Group A	Group B	Primary	0.39	100
50	Brown et al.	2017	UK	Case-control	1400	Group A	Group B	Secondary	0.00	35
51	Black et al.	2020	USA	RCT	3300	Group A	Group B	Primary	0.40	100
52	Grey et al.	2019	UK	Cohort	18000	Group A	Group B	Secondary	0.23	89
53	White et al.	2018	USA	RCT	3400	Group A	Group B	Primary	0.41	100
54	Black et al.	2017	UK	Case-control	1500	Group A	Group B	Secondary	0.00	32
55	Green et al.	2020	USA	RCT	3500	Group A	Group B	Primary	0.42	100
56	Brown et al.	2019	UK	Cohort	19000	Group A	Group B	Secondary	0.24	90
57	Black et al.	2018	USA	RCT	3600	Group A	Group B	Primary	0.43	100
58	Grey et al.	2017	UK	Case-control	1600	Group A	Group B	Secondary	0.00	29
59	White et al.	2020	USA	RCT	3700	Group A	Group B	Primary	0.44	100
60	Black et al.	2019	UK	Cohort	20000	Group A	Group B	Secondary	0.25	91
61	Green et al.	2018	USA	RCT	3800	Group A	Group B	Primary	0.45	100
62	Brown et al.	2017	UK	Case-control	1700	Group A	Group B	Secondary	0.00	26
63	Black et al.	2020	USA	RCT	3900	Group A	Group B	Primary	0.46	100
64	Grey et al.	2019	UK	Cohort	21000	Group A	Group B	Secondary	0.26	92
65	White et al.	2018	USA	RCT	4000	Group A	Group B	Primary	0.47	100
66	Black et al.	2017	UK	Case-control	1800	Group A	Group B	Secondary	0.00	23
67	Green et al.	2020	USA	RCT	4100	Group A	Group B	Primary	0.48	100
68	Brown et al.	2019	UK	Cohort	22000	Group A	Group B	Secondary	0.27	93
69	Black et al.	2018	USA	RCT	4200	Group A	Group B	Primary	0.49	100
70	Grey et al.	2017	UK	Case-control	1900	Group A	Group B	Secondary	0.00	20
71	White et al.	2020	USA	RCT	4300	Group A	Group B	Primary	0.50	100
72	Black et al.	2019	UK	Cohort	23000	Group A	Group B	Secondary	0.28	94
73	Green et al.	2018	USA	RCT	4400	Group A	Group B	Primary	0.51	100
74	Brown et al.	2017	UK	Case-control	2000	Group A	Group B	Secondary	0.00	17
75	Black et al.	2020	USA	RCT	4500	Group A	Group B	Primary	0.52	100
76	Grey et al.	2019	UK	Cohort	24000	Group A	Group B	Secondary	0.29	95
77	White et al.	2018	USA	RCT	4600	Group A	Group B	Primary	0.53	100
78	Black et al.	2017	UK	Case-control	2100	Group A	Group B	Secondary	0.00	14
79	Green et al.	2020	USA	RCT	4700	Group A	Group B	Primary	0.54	100
80	Brown et al.	2019	UK	Cohort	25000	Group A	Group B	Secondary	0.30	96
81	Black et al.	2018	USA	RCT	4800	Group A	Group B	Primary	0.55	100
82	Grey et al.	2017	UK	Case-control	2200	Group A	Group B	Secondary	0.00	11
83	White et al.	2020	USA	RCT	4900	Group A	Group B	Primary	0.56	100
84	Black et al.	2019	UK	Cohort	26000	Group A	Group B	Secondary	0.31	97
85	Green et al.	2018	USA	RCT	5000	Group A	Group B	Primary	0.57	100
86	Brown et al.	2017	UK	Case-control	2300	Group A	Group B	Secondary	0.00	8
87	Black et al.	2020	USA	RCT	5100	Group A	Group B	Primary	0.58	100
88	Grey et al.	2019	UK	Cohort	27000	Group A	Group B	Secondary	0.32	98
89	White et al.	2018	USA	RCT	5200	Group A	Group B	Primary	0.59	100
90	Black et al.	2017	UK	Case-control	2400	Group A	Group B	Secondary	0.00	5
91	Green et al.	2020	USA	RCT	5300	Group A	Group B	Primary	0.60	100
92	Brown et al.	2019	UK	Cohort	28000	Group A	Group B	Secondary	0.33	99
93	Black et al.	2018	USA	RCT	5400	Group A	Group B	Primary	0.61	100
94	Grey et al.	2017	UK	Case-control	2500	Group A	Group B	Secondary	0.00	2
95	White et al.	2020	USA	RCT	5500	Group A	Group B	Primary	0.62	100
96	Black et al.	2019	UK	Cohort	29000	Group A	Group B	Secondary	0.34	100
97	Green et al.	2018	USA	RCT	5600	Group A	Group B	Primary	0.63	100
98	Brown et al.	2017	UK	Case-control	2600	Group A	Group B	Secondary	0.00	0
99	Black et al.	2020	USA	RCT	5700	Group A	Group B	Primary	0.64	100
100	Grey et al.	2019	UK	Cohort	30000	Group A	Group B	Secondary	0.35	100

Study	Author	Year	Country	Sample Size	Prevalence	CI	OR	CI	OR	CI
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Study ID	Author(s)	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	1000	Group A	Group B	Primary	0.15	85
2	Johnson et al.	2019	UK	Observational	5000	Group A	Group B	Primary	0.10	70
3	Chen et al.	2020	China	RCT	2000	Group A	Group B	Primary	0.20	90
4	Lee et al.	2017	South Korea	Cohort	3000	Group A	Group B	Primary	0.12	75
5	Patel et al.	2019	India	RCT	1500	Group A	Group B	Primary	0.18	80
6	Nguyen et al.	2018	Vietnam	Observational	4000	Group A	Group B	Primary	0.08	65
7	Wang et al.	2020	China	RCT	1200	Group A	Group B	Primary	0.22	92
8	Kim et al.	2017	South Korea	Cohort	2500	Group A	Group B	Primary	0.14	78
9	Reddy et al.	2019	India	RCT	1800	Group A	Group B	Primary	0.16	82
10	Nguyen et al.	2018	Vietnam	Observational	3500	Group A	Group B	Primary	0.09	68
11	Wang et al.	2020	China	RCT	1100	Group A	Group B	Primary	0.21	91
12	Kim et al.	2017	South Korea	Cohort	2200	Group A	Group B	Primary	0.13	76
13	Reddy et al.	2019	India	RCT	1600	Group A	Group B	Primary	0.17	81
14	Nguyen et al.	2018	Vietnam	Observational	3800	Group A	Group B	Primary	0.07	64
15	Wang et al.	2020	China	RCT	1300	Group A	Group B	Primary	0.23	93
16	Kim et al.	2017	South Korea	Cohort	2400	Group A	Group B	Primary	0.11	74
17	Reddy et al.	2019	India	RCT	1700	Group A	Group B	Primary	0.19	83
18	Nguyen et al.	2018	Vietnam	Observational	3600	Group A	Group B	Primary	0.06	63
19	Wang et al.	2020	China	RCT	1400	Group A	Group B	Primary	0.24	94
20	Kim et al.	2017	South Korea	Cohort	2300	Group A	Group B	Primary	0.10	73
21	Reddy et al.	2019	India	RCT	1900	Group A	Group B	Primary	0.20	84
22	Nguyen et al.	2018	Vietnam	Observational	3900	Group A	Group B	Primary	0.05	62
23	Wang et al.	2020	China	RCT	1500	Group A	Group B	Primary	0.25	95
24	Kim et al.	2017	South Korea	Cohort	2600	Group A	Group B	Primary	0.09	72
25	Reddy et al.	2019	India	RCT	2000	Group A	Group B	Primary	0.21	85
26	Nguyen et al.	2018	Vietnam	Observational	4100	Group A	Group B	Primary	0.04	61
27	Wang et al.	2020	China	RCT	1600	Group A	Group B	Primary	0.26	96
28	Kim et al.	2017	South Korea	Cohort	2700	Group A	Group B	Primary	0.08	71
29	Reddy et al.	2019	India	RCT	2100	Group A	Group B	Primary	0.22	86
30	Nguyen et al.	2018	Vietnam	Observational	4200	Group A	Group B	Primary	0.03	60
31	Wang et al.	2020	China	RCT	1700	Group A	Group B	Primary	0.27	97
32	Kim et al.	2017	South Korea	Cohort	2800	Group A	Group B	Primary	0.07	70
33	Reddy et al.	2019	India	RCT	2200	Group A	Group B	Primary	0.23	87
34	Nguyen et al.	2018	Vietnam	Observational	4300	Group A	Group B	Primary	0.02	59
35	Wang et al.	2020	China	RCT	1800	Group A	Group B	Primary	0.28	98
36	Kim et al.	2017	South Korea	Cohort	2900	Group A	Group B	Primary	0.06	69
37	Reddy et al.	2019	India	RCT	2300	Group A	Group B	Primary	0.24	88
38	Nguyen et al.	2018	Vietnam	Observational	4400	Group A	Group B	Primary	0.01	58
39	Wang et al.	2020	China	RCT	1900	Group A	Group B	Primary	0.29	99
40	Kim et al.	2017	South Korea	Cohort	3000	Group A	Group B	Primary	0.05	68
41	Reddy et al.	2019	India	RCT	2400	Group A	Group B	Primary	0.25	89
42	Nguyen et al.	2018	Vietnam	Observational	4500	Group A	Group B	Primary	0.00	57
43	Wang et al.	2020	China	RCT	2000	Group A	Group B	Primary	0.30	100
44	Kim et al.	2017	South Korea	Cohort	3100	Group A	Group B	Primary	0.04	67
45	Reddy et al.	2019	India	RCT	2500	Group A	Group B	Primary	0.26	90
46	Nguyen et al.	2018	Vietnam	Observational	4600	Group A	Group B	Primary	0.00	56
47	Wang et al.	2020	China	RCT	2100	Group A	Group B	Primary	0.31	101
48	Kim et al.	2017	South Korea	Cohort	3200	Group A	Group B	Primary	0.03	66
49	Reddy et al.	2019	India	RCT	2600	Group A	Group B	Primary	0.27	91
50	Nguyen et al.	2018	Vietnam	Observational	4700	Group A	Group B	Primary	0.00	55
51	Wang et al.	2020	China	RCT	2200	Group A	Group B	Primary	0.32	102
52	Kim et al.	2017	South Korea	Cohort	3300	Group A	Group B	Primary	0.02	65
53	Reddy et al.	2019	India	RCT	2700	Group A	Group B	Primary	0.28	92
54	Nguyen et al.	2018	Vietnam	Observational	4800	Group A	Group B	Primary	0.00	54
55	Wang et al.	2020	China	RCT	2300	Group A	Group B	Primary	0.33	103
56	Kim et al.	2017	South Korea	Cohort	3400	Group A	Group B	Primary	0.01	64
57	Reddy et al.	2019	India	RCT	2800	Group A	Group B	Primary	0.29	93
58	Nguyen et al.	2018	Vietnam	Observational	4900	Group A	Group B	Primary	0.00	53
59	Wang et al.	2020	China	RCT	2400	Group A	Group B	Primary	0.34	104
60	Kim et al.	2017	South Korea	Cohort	3500	Group A	Group B	Primary	0.00	63
61	Reddy et al.	2019	India	RCT	2900	Group A	Group B	Primary	0.30	94
62	Nguyen et al.	2018	Vietnam	Observational	5000	Group A	Group B	Primary	0.00	52
63	Wang et al.	2020	China	RCT	2500	Group A	Group B	Primary	0.35	105
64	Kim et al.	2017	South Korea	Cohort	3600	Group A	Group B	Primary	0.00	62
65	Reddy et al.	2019	India	RCT	3000	Group A	Group B	Primary	0.31	95
66	Nguyen et al.	2018	Vietnam	Observational	5100	Group A	Group B	Primary	0.00	51
67	Wang et al.	2020	China	RCT	2600	Group A	Group B	Primary	0.36	106
68	Kim et al.	2017	South Korea	Cohort	3700	Group A	Group B	Primary	0.00	61
69	Reddy et al.	2019	India	RCT	3100	Group A	Group B	Primary	0.32	96
70	Nguyen et al.	2018	Vietnam	Observational	5200	Group A	Group B	Primary	0.00	50
71	Wang et al.	2020	China	RCT	2700	Group A	Group B	Primary	0.37	107
72	Kim et al.	2017	South Korea	Cohort	3800	Group A	Group B	Primary	0.00	60
73	Reddy et al.	2019	India	RCT	3200	Group A	Group B	Primary	0.33	97
74	Nguyen et al.	2018	Vietnam	Observational	5300	Group A	Group B	Primary	0.00	49
75	Wang et al.	2020	China	RCT	2800	Group A	Group B	Primary	0.38	108
76	Kim et al.	2017	South Korea	Cohort	3900	Group A	Group B	Primary	0.00	59
77	Reddy et al.	2019	India	RCT	3300	Group A	Group B	Primary	0.34	98
78	Nguyen et al.	2018	Vietnam	Observational	5400	Group A	Group B	Primary	0.00	48
79	Wang et al.	2020	China	RCT	2900	Group A	Group B	Primary	0.39	109
80	Kim et al.	2017	South Korea	Cohort	4000	Group A	Group B	Primary	0.00	58
81	Reddy et al.	2019	India	RCT	3400	Group A	Group B	Primary	0.35	99
82	Nguyen et al.	2018	Vietnam	Observational	5500	Group A	Group B	Primary	0.00	47
83	Wang et al.	2020	China	RCT	3000	Group A	Group B	Primary	0.40	110
84	Kim et al.	2017	South Korea	Cohort	4100	Group A	Group B	Primary	0.00	57
85	Reddy et al.	2019	India	RCT	3500	Group A	Group B	Primary	0.36	100
86	Nguyen et al.	2018	Vietnam	Observational	5600	Group A	Group B	Primary	0.00	46
87	Wang et al.	2020	China	RCT	3100	Group A	Group B	Primary	0.41	111
88	Kim et al.	2017	South Korea	Cohort	4200	Group A	Group B	Primary	0.00	56
89	Reddy et al.	2019	India	RCT	3600	Group A	Group B	Primary	0.37	101
90	Nguyen et al.	2018	Vietnam	Observational	5700	Group A	Group B	Primary	0.00	45
91	Wang et al.	2020	China	RCT	3200	Group A	Group B	Primary	0.42	112
92	Kim et al.	2017	South Korea	Cohort	4300	Group A	Group B	Primary	0.00	55
93	Reddy et al.	2019	India	RCT	3700	Group A	Group B	Primary	0.38	102
94	Nguyen et al.	2018	Vietnam	Observational	5800	Group A	Group B	Primary	0.00	44
95	Wang et al.	2020	China	RCT	3300	Group A	Group B	Primary	0.43	113
96	Kim et al.	2017	South Korea	Cohort	4400	Group A	Group B	Primary	0.00	54
97	Reddy et al.	2019	India	RCT	3800	Group A	Group B	Primary	0.39	103
98	Nguyen et al.	2018	Vietnam	Observational	5900	Group A	Group B	Primary	0.00	43
99	Wang et al.	2020	China	RCT	3400	Group A	Group B	Primary	0.44	114
100	Kim et al.	2017	South Korea	Cohort	4500	Group A	Group B	Primary	0.00	53

Study	Author	Year	Country	Sample Size	Prevalence	95% CI	OR	95% CI	OR	95% CI
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Study	Author	Year	Country	Design	Sample Size	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	1200	Survival	0.15	85
2	Johnson et al.	2019	UK	Cohort	2500	Quality of Life	0.10	78
3	Chen et al.	2020	China	RCT	800	Mortality	0.20	92
4	Patel et al.	2017	India	Observational	3000	Incidence	0.08	70
5	Kim et al.	2019	South Korea	RCT	1500	Adverse Events	0.12	80
6	Nguyen et al.	2018	Vietnam	Cohort	1800	Healthcare Costs	0.05	65
7	Wang et al.	2020	China	RCT	900	Compliance	0.18	88
8	Lee et al.	2019	South Korea	Observational	2200	Side Effects	0.07	72
9	Alam et al.	2018	Bangladesh	Cohort	1600	Adherence	0.09	75
10	Dasgupta et al.	2019	India	RCT	1100	Patient Satisfaction	0.11	79
11	Nguyen et al.	2020	Vietnam	Observational	2800	Healthcare Access	0.06	68
12	Chen et al.	2018	China	RCT	1300	Healthcare Utilization	0.14	82
13	Patel et al.	2019	India	Cohort	2100	Healthcare Expenditure	0.04	62
14	Kim et al.	2020	South Korea	RCT	1400	Healthcare Equity	0.13	81
15	Nguyen et al.	2018	Vietnam	Observational	2600	Healthcare Quality	0.03	60
16	Wang et al.	2019	China	RCT	1000	Healthcare Access	0.16	86
17	Lee et al.	2020	South Korea	Observational	2300	Healthcare Costs	0.02	58
18	Alam et al.	2019	Bangladesh	Cohort	1700	Healthcare Equity	0.08	74
19	Dasgupta et al.	2020	India	RCT	1200	Healthcare Quality	0.10	78
20	Nguyen et al.	2018	Vietnam	Observational	2700	Healthcare Access	0.01	55
21	Chen et al.	2019	China	RCT	1100	Healthcare Equity	0.17	89
22	Patel et al.	2020	India	Cohort	2400	Healthcare Costs	0.05	65
23	Kim et al.	2018	South Korea	RCT	1300	Healthcare Access	0.12	80
24	Nguyen et al.	2019	Vietnam	Observational	2900	Healthcare Quality	0.04	62
25	Wang et al.	2020	China	RCT	1400	Healthcare Equity	0.19	90
26	Lee et al.	2018	South Korea	Observational	2000	Healthcare Costs	0.03	58
27	Alam et al.	2019	Bangladesh	Cohort	1800	Healthcare Access	0.07	72
28	Dasgupta et al.	2020	India	RCT	1500	Healthcare Quality	0.11	79
29	Nguyen et al.	2018	Vietnam	Observational	3100	Healthcare Access	0.02	55
30	Chen et al.	2019	China	RCT	1600	Healthcare Equity	0.21	93
31	Patel et al.	2020	India	Cohort	2600	Healthcare Costs	0.06	68
32	Kim et al.	2018	South Korea	RCT	1700	Healthcare Access	0.13	81
33	Nguyen et al.	2019	Vietnam	Observational	3300	Healthcare Quality	0.05	70
34	Wang et al.	2020	China	RCT	1800	Healthcare Equity	0.22	94
35	Lee et al.	2018	South Korea	Observational	2100	Healthcare Costs	0.04	62
36	Alam et al.	2019	Bangladesh	Cohort	1900	Healthcare Access	0.08	74
37	Dasgupta et al.	2020	India	RCT	1600	Healthcare Quality	0.12	80
38	Nguyen et al.	2018	Vietnam	Observational	3500	Healthcare Access	0.03	60
39	Chen et al.	2019	China	RCT	1900	Healthcare Equity	0.23	95
40	Patel et al.	2020	India	Cohort	2800	Healthcare Costs	0.07	75
41	Kim et al.	2018	South Korea	RCT	2000	Healthcare Access	0.14	82
42	Nguyen et al.	2019	Vietnam	Observational	3700	Healthcare Quality	0.06	72
43	Wang et al.	2020	China	RCT	2100	Healthcare Equity	0.24	96
44	Lee et al.	2018	South Korea	Observational	2200	Healthcare Costs	0.05	70
45	Alam et al.	2019	Bangladesh	Cohort	2000	Healthcare Access	0.09	76
46	Dasgupta et al.	2020	India	RCT	1700	Healthcare Quality	0.13	81
47	Nguyen et al.	2018	Vietnam	Observational	4000	Healthcare Access	0.04	65
48	Chen et al.	2019	China	RCT	2200	Healthcare Equity	0.25	97
49	Patel et al.	2020	India	Cohort	3000	Healthcare Costs	0.08	78
50	Kim et al.	2018	South Korea	RCT	2300	Healthcare Access	0.15	83
51	Nguyen et al.	2019	Vietnam	Observational	4200	Healthcare Quality	0.07	74
52	Wang et al.	2020	China	RCT	2400	Healthcare Equity	0.26	98
53	Lee et al.	2018	South Korea	Observational	2400	Healthcare Costs	0.06	72
54	Alam et al.	2019	Bangladesh	Cohort	2100	Healthcare Access	0.10	80
55	Dasgupta et al.	2020	India	RCT	1800	Healthcare Quality	0.14	84
56	Nguyen et al.	2018	Vietnam	Observational	4500	Healthcare Access	0.05	75
57	Chen et al.	2019	China	RCT	2500	Healthcare Equity	0.27	99
58	Patel et al.	2020	India	Cohort	3200	Healthcare Costs	0.09	82
59	Kim et al.	2018	South Korea	RCT	2600	Healthcare Access	0.16	85
60	Nguyen et al.	2019	Vietnam	Observational	4700	Healthcare Quality	0.08	78
61	Wang et al.	2020	China	RCT	2700	Healthcare Equity	0.28	100
62	Lee et al.	2018	South Korea	Observational	2500	Healthcare Costs	0.07	76
63	Alam et al.	2019	Bangladesh	Cohort	2200	Healthcare Access	0.11	81
64	Dasgupta et al.	2020	India	RCT	1900	Healthcare Quality	0.15	85
65	Nguyen et al.	2018	Vietnam	Observational	5000	Healthcare Access	0.06	78
66	Chen et al.	2019	China	RCT	2800	Healthcare Equity	0.29	100
67	Patel et al.	2020	India	Cohort	3400	Healthcare Costs	0.10	83
68	Kim et al.	2018	South Korea	RCT	2900	Healthcare Access	0.17	87
69	Nguyen et al.	2019	Vietnam	Observational	5200	Healthcare Quality	0.09	80
70	Wang et al.	2020	China	RCT	3000	Healthcare Equity	0.30	100
71	Lee et al.	2018	South Korea	Observational	2600	Healthcare Costs	0.08	78
72	Alam et al.	2019	Bangladesh	Cohort	2300	Healthcare Access	0.12	82
73	Dasgupta et al.	2020	India	RCT	2000	Healthcare Quality	0.16	86
74	Nguyen et al.	2018	Vietnam	Observational	5500	Healthcare Access	0.07	80
75	Chen et al.	2019	China	RCT	3100	Healthcare Equity	0.31	100
76	Patel et al.	2020	India	Cohort	3600	Healthcare Costs	0.11	84
77	Kim et al.	2018	South Korea	RCT	3200	Healthcare Access	0.18	89
78	Nguyen et al.	2019	Vietnam	Observational	5700	Healthcare Quality	0.10	82
79	Wang et al.	2020	China	RCT	3300	Healthcare Equity	0.32	100
80	Lee et al.	2018	South Korea	Observational	2700	Healthcare Costs	0.09	80
81	Alam et al.	2019	Bangladesh	Cohort	2400	Healthcare Access	0.13	83
82	Dasgupta et al.	2020	India	RCT	2100	Healthcare Quality	0.17	87
83	Nguyen et al.	2018	Vietnam	Observational	6000	Healthcare Access	0.08	82
84	Chen et al.	2019	China	RCT	3400	Healthcare Equity	0.33	100
85	Patel et al.	2020	India	Cohort	3800	Healthcare Costs	0.12	85
86	Kim et al.	2018	South Korea	RCT	3500	Healthcare Access	0.19	90
87	Nguyen et al.	2019	Vietnam	Observational	6200	Healthcare Quality	0.11	83
88	Wang et al.	2020	China	RCT	3600	Healthcare Equity	0.34	100
89	Lee et al.	2018	South Korea	Observational	2800	Healthcare Costs	0.10	82
90	Alam et al.	2019	Bangladesh	Cohort	2500	Healthcare Access	0.14	84
91	Dasgupta et al.	2020	India	RCT	2200	Healthcare Quality	0.18	88
92	Nguyen et al.	2018	Vietnam	Observational	6500	Healthcare Access	0.09	84
93	Chen et al.	2019	China	RCT	3700	Healthcare Equity	0.35	100
94	Patel et al.	2020	India	Cohort	4000	Healthcare Costs	0.13	86
95	Kim et al.	2018	South Korea	RCT	3600	Healthcare Access	0.20	91
96	Nguyen et al.	2019	Vietnam	Observational	6700	Healthcare Quality	0.12	84
97	Wang et al.	2020	China	RCT	3800	Healthcare Equity	0.36	100
98	Lee et al.	2018	South Korea	Observational	2900	Healthcare Costs	0.11	83
99	Alam et al.	2019	Bangladesh	Cohort	2600	Healthcare Access	0.15	85
100	Dasgupta et al.	2020	India	RCT	2300	Healthcare Quality	0.19	89
101	Nguyen et al.	2018	Vietnam	Observational	7000	Healthcare Access	0.10	85
102	Chen et al.	2019	China	RCT	4000	Healthcare Equity	0.37	100
103	Patel et al.	2020	India	Cohort	4200	Healthcare Costs	0.14	87
104	Kim et al.	2018	South Korea	RCT	3800	Healthcare Access	0.21	92
105	Nguyen et al.	2019	Vietnam	Observational	7200	Healthcare Quality	0.13	85
106	Wang et al.	2020	China	RCT	4100	Healthcare Equity	0.38	100
107	Lee et al.	2018	South Korea	Observational	3000	Healthcare Costs	0.12	84
108	Alam et al.	2019	Bangladesh	Cohort	2700	Healthcare Access	0.16	86
109	Dasgupta et al.	2020	India	RCT	2400	Healthcare Quality	0.20	90
110	Nguyen et al.	2018	Vietnam	Observational	7500	Healthcare Access	0.11	86
111	Chen et al.	2019	China	RCT	4300	Healthcare Equity	0.39	100
112	Patel et al.	2020	India	Cohort	4400	Healthcare Costs	0.15	88
113	Kim et al.	2018	South Korea	RCT	4000	Healthcare Access	0.22	93
114	Nguyen et al.	2019	Vietnam	Observational	7700	Healthcare Quality	0.14	86
115	Wang et al.	2020	China	RCT	4200	Healthcare Equity	0.40	100
116	Lee et al.	2018	South Korea	Observational	3100	Healthcare Costs	0.13	85
117	Alam et al.	2019	Bangladesh	Cohort	2800	Healthcare Access	0.17	87
118	Dasgupta et al.	2020	India	RCT	2500	Healthcare Quality	0.21	91
119	Nguyen et al.	2018	Vietnam	Observational	8000	Healthcare Access	0.12	87
120	Chen et al.	2019	China	RCT	4600	Healthcare Equity	0.41	100
121	Patel et al.	2020	India	Cohort	4600	Healthcare Costs	0.16	89
122	Kim et al.	2018	South Korea	RCT	4200	Healthcare Access	0.23	94
123	Nguyen et al.	2019	Vietnam	Observational	8200	Healthcare Quality	0.15	87
124	Wang et al.	2020	China	RCT	4400	Healthcare Equity	0.42	100
125	Lee et al.	2018	South Korea	Observational	3200	Healthcare Costs	0.14	86
126	Alam et al.	2019	Bangladesh	Cohort	2900	Healthcare Access	0.18	88
127	Dasgupta et al.	2020	India	RCT	2600	Healthcare Quality	0.22	92
128	Nguyen et al.	2018	Vietnam	Observational	8500	Healthcare Access	0.13	88
129	Chen et al.	2019	China	RCT	4900	Healthcare Equity	0.43	100
130	Patel et al.	2020	India	Cohort	4800	Healthcare Costs	0.17	90
131	Kim et al.	2018	South Korea	RCT	4400	Healthcare Access	0.24	95
132	Nguyen et al.	2019	Vietnam	Observational	8700	Healthcare Quality	0.16	88
133	Wang et al.	2020	China	RCT	4600	Healthcare Equity	0.44	100
134	Lee et al.	2018	South Korea	Observational	3300	Healthcare Costs	0.15	87
135	Alam et al.	2019	Bangladesh	Cohort	3000	Healthcare Access	0.19	89
136	Dasgupta et al.	2020	India	RCT	2700	Healthcare Quality	0.23	93
137	Nguyen et al.	2018	Vietnam	Observational	9000	Healthcare Access	0.14	89
138	Chen et al.	2019	China	RCT	5200	Healthcare Equity	0.45	100
139	Patel et al.	2020	India	Cohort	5000	Healthcare Costs	0.18	91
140	Kim et al.	2018	South Korea	RCT	4600	Healthcare Access	0.25	96
141	Nguyen et al.	2019	Vietnam	Observational	9200	Healthcare Quality	0.17	89
142	Wang et al.	2020	China	RCT	4800	Healthcare Equity	0.46	100
143	Lee et al.	2018	South Korea	Observational	3400	Healthcare Costs	0.16	88
144	Alam et al.	2019	Bangladesh	Cohort	3100	Healthcare Access	0.20	90
145	Dasgupta et al.	2020	India	RCT	2800	Healthcare Quality	0.24	94
146	Nguyen et al.	2018	Vietnam	Observational	9500	Healthcare Access	0.15	90
147	Chen et al.	2019	China	RCT	5500	Healthcare Equity	0.47	100
148	Patel et al.	2020	India	Cohort	5200	Healthcare Costs	0.19	92
149	Kim et al.	2018	South Korea	RCT	4800	Healthcare Access	0.26	97
150	Nguyen et al.	2019	Vietnam	Observational	9700	Healthcare Quality	0.18	90
151	Wang et al.	2020	China	RCT	5000	Healthcare Equity	0.48	100
152	Lee et al.	2018	South Korea	Observational	3500	Healthcare Costs	0.17	89
153	Alam et al.	2019	Bangladesh	Cohort	3200	Healthcare Access	0.21	91
154	Dasgupta et al.	2020	India	RCT	2900	Healthcare Quality	0.25	95
155	Nguyen et al.	2018	Vietnam	Observational	10000	Healthcare Access	0.16	91
156	Chen et al.	2019	China	RCT	5800	Healthcare Equity	0.49	100
157	Patel et al.	2020	India	Cohort	5400	Healthcare Costs	0.20	93
158	Kim et al.	2018	South Korea	RCT	5000	Healthcare Access	0.27	98
159	Nguyen et al.	2019	Vietnam	Observational	9900	Healthcare Quality	0.19	91
160	Wang et al.	2020	China	RCT	5200	Healthcare Equity	0.50	100
161	Lee et al.	2018	South Korea	Observational	3600	Healthcare Costs	0.18	90

Study ID	Author	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	1000	Group A	Group B	Primary	0.15	85
2	Johnson et al.	2019	UK	Cohort	5000	Group A	Group B	Primary	0.12	78
3	Chen et al.	2020	China	RCT	2000	Group A	Group B	Primary	0.18	92
4	Lee et al.	2017	Canada	Case-control	3000	Group A	Group B	Primary	0.10	70
5	Patel et al.	2019	India	RCT	1500	Group A	Group B	Primary	0.14	80
6	Wang et al.	2018	China	Cohort	8000	Group A	Group B	Primary	0.11	75
7	Miller et al.	2020	USA	RCT	1200	Group A	Group B	Primary	0.16	88
8	Kim et al.	2019	South Korea	Cohort	6000	Group A	Group B	Primary	0.13	79
9	Nguyen et al.	2018	Vietnam	RCT	900	Group A	Group B	Primary	0.17	82
10	Anderson et al.	2017	USA	Case-control	4000	Group A	Group B	Primary	0.09	68
11	Thompson et al.	2019	UK	RCT	1100	Group A	Group B	Primary	0.15	84
12	White et al.	2020	USA	Cohort	7000	Group A	Group B	Primary	0.12	77
13	Green et al.	2018	Canada	RCT	1300	Group A	Group B	Primary	0.16	86
14	Black et al.	2019	UK	Case-control	5000	Group A	Group B	Primary	0.10	72
15	Brown et al.	2020	USA	RCT	1400	Group A	Group B	Primary	0.17	87
16	Wilson et al.	2018	USA	Cohort	9000	Group A	Group B	Primary	0.11	76
17	Moore et al.	2019	UK	RCT	1000	Group A	Group B	Primary	0.15	83
18	Young et al.	2020	USA	Case-control	6000	Group A	Group B	Primary	0.09	69
19	King et al.	2018	UK	RCT	1100	Group A	Group B	Primary	0.16	85
20	Wright et al.	2019	USA	Cohort	8000	Group A	Group B	Primary	0.12	78
21	Scott et al.	2020	USA	RCT	1200	Group A	Group B	Primary	0.17	89
22	Green et al.	2018	Canada	Case-control	4000	Group A	Group B	Primary	0.10	71
23	White et al.	2019	UK	RCT	1300	Group A	Group B	Primary	0.15	84
24	Black et al.	2020	USA	Cohort	7000	Group A	Group B	Primary	0.11	77
25	Brown et al.	2018	Canada	RCT	1400	Group A	Group B	Primary	0.16	86
26	Wilson et al.	2019	UK	Case-control	5000	Group A	Group B	Primary	0.10	72
27	Moore et al.	2020	USA	RCT	1000	Group A	Group B	Primary	0.15	83
28	Young et al.	2018	USA	Cohort	9000	Group A	Group B	Primary	0.12	78
29	King et al.	2019	UK	RCT	1100	Group A	Group B	Primary	0.16	85
30	Wright et al.	2020	USA	Case-control	6000	Group A	Group B	Primary	0.09	69
31	Scott et al.	2018	UK	RCT	1200	Group A	Group B	Primary	0.17	88
32	Green et al.	2019	Canada	Cohort	8000	Group A	Group B	Primary	0.11	76
33	White et al.	2020	USA	RCT	1300	Group A	Group B	Primary	0.15	84
34	Black et al.	2018	USA	Case-control	4000	Group A	Group B	Primary	0.10	71
35	Brown et al.	2019	UK	RCT	1400	Group A	Group B	Primary	0.16	86
36	Wilson et al.	2020	UK	Cohort	9000	Group A	Group B	Primary	0.12	78
37	Moore et al.	2018	USA	RCT	1000	Group A	Group B	Primary	0.15	83
38	Young et al.	2019	USA	Case-control	6000	Group A	Group B	Primary	0.09	69
39	King et al.	2020	UK	RCT	1100	Group A	Group B	Primary	0.16	85
40	Wright et al.	2018	USA	Cohort	8000	Group A	Group B	Primary	0.11	76
41	Scott et al.	2019	USA	RCT	1200	Group A	Group B	Primary	0.17	88
42	Green et al.	2020	Canada	Case-control	4000	Group A	Group B	Primary	0.10	71
43	White et al.	2018	UK	RCT	1300	Group A	Group B	Primary	0.15	84
44	Black et al.	2019	USA	Cohort	7000	Group A	Group B	Primary	0.11	77
45	Brown et al.	2020	Canada	RCT	1400	Group A	Group B	Primary	0.16	86
46	Wilson et al.	2018	UK	Case-control	5000	Group A	Group B	Primary	0.10	72
47	Moore et al.	2019	USA	RCT	1000	Group A	Group B	Primary	0.15	83
48	Young et al.	2020	USA	Cohort	9000	Group A	Group B	Primary	0.12	78
49	King et al.	2018	UK	RCT	1100	Group A	Group B	Primary	0.16	85
50	Wright et al.	2019	USA	Case-control	6000	Group A	Group B	Primary	0.09	69
51	Scott et al.	2020	UK	RCT	1200	Group A	Group B	Primary	0.17	88
52	Green et al.	2018	Canada	Cohort	8000	Group A	Group B	Primary	0.11	76
53	White et al.	2019	USA	RCT	1300	Group A	Group B	Primary	0.15	84
54	Black et al.	2020	USA	Case-control	4000	Group A	Group B	Primary	0.10	71
55	Brown et al.	2018	UK	RCT	1400	Group A	Group B	Primary	0.16	86
56	Wilson et al.	2019	UK	Cohort	9000	Group A	Group B	Primary	0.12	78
57	Moore et al.	2020	USA	RCT	1000	Group A	Group B	Primary	0.15	83
58	Young et al.	2018	USA	Case-control	6000	Group A	Group B	Primary	0.09	69
59	King et al.	2019	UK	RCT	1100	Group A	Group B	Primary	0.16	85
60	Wright et al.	2020	USA	Cohort	8000	Group A	Group B	Primary	0.11	76
61	Scott et al.	2018	USA	RCT	1200	Group A	Group B	Primary	0.17	88
62	Green et al.	2019	Canada	Case-control	4000	Group A	Group B	Primary	0.10	71
63	White et al.	2020	UK	RCT	1300	Group A	Group B	Primary	0.15	84
64	Black et al.	2018	USA	Cohort	7000	Group A	Group B	Primary	0.11	77
65	Brown et al.	2019	Canada	RCT	1400	Group A	Group B	Primary	0.16	86
66	Wilson et al.	2020	UK	Case-control	5000	Group A	Group B	Primary	0.10	72
67	Moore et al.	2018	USA	RCT	1000	Group A	Group B	Primary	0.15	83
68	Young et al.	2019	USA	Cohort	9000	Group A	Group B	Primary	0.12	78
69	King et al.	2020	UK	RCT	1100	Group A	Group B	Primary	0.16	85
70	Wright et al.	2018	USA	Case-control	6000	Group A	Group B	Primary	0.09	69
71	Scott et al.	2019	USA	RCT	1200	Group A	Group B	Primary	0.17	88
72	Green et al.	2020	Canada	Cohort	8000	Group A	Group B	Primary	0.11	76
73	White et al.	2018	UK	RCT	1300	Group A	Group B	Primary	0.15	84
74	Black et al.	2019	USA	Cohort	7000	Group A	Group B	Primary	0.11	77
75	Brown et al.	2020	Canada	RCT	1400	Group A	Group B	Primary	0.16	86
76	Wilson et al.	2018	UK	Case-control	5000	Group A	Group B	Primary	0.10	72
77	Moore et al.	2019	USA	RCT	1000	Group A	Group B	Primary	0.15	83
78	Young et al.	2020	USA	Cohort	9000	Group A	Group B	Primary	0.12	78
79	King et al.	2018	UK	RCT	1100	Group A	Group B	Primary	0.16	85
80	Wright et al.	2019	USA	Case-control	6000	Group A	Group B	Primary	0.09	69
81	Scott et al.	2020	UK	RCT	1200	Group A	Group B	Primary	0.17	88
82	Green et al.	2018	Canada	Cohort	8000	Group A	Group B	Primary	0.11	76
83	White et al.	2019	USA	RCT	1300	Group A	Group B	Primary	0.15	84
84	Black et al.	2020	USA	Case-control	4000	Group A	Group B	Primary	0.10	71
85	Brown et al.	2018	UK	RCT	1400	Group A	Group B	Primary	0.16	86
86	Wilson et al.	2019	UK	Cohort	9000	Group A	Group B	Primary	0.12	78
87	Moore et al.	2020	USA	RCT	1000	Group A	Group B	Primary	0.15	83
88	Young et al.	2018	USA	Case-control	6000	Group A	Group B	Primary	0.09	69
89	King et al.	2019	UK	RCT	1100	Group A	Group B	Primary	0.16	85
90	Wright et al.	2020	USA	Cohort	8000	Group A	Group B	Primary	0.11	76
91	Scott et al.	2018	USA	RCT	1200	Group A	Group B	Primary	0.17	88
92	Green et al.	2019	Canada	Case-control	4000	Group A	Group B	Primary	0.10	71
93	White et al.	2020	UK	RCT	1300	Group A	Group B	Primary	0.15	84
94	Black et al.	2018	USA	Cohort	7000	Group A	Group B	Primary	0.11	77
95	Brown et al.	2019	Canada	RCT	1400	Group A	Group B	Primary	0.16	86
96	Wilson et al.	2020	UK	Case-control	5000	Group A	Group B	Primary	0.10	72
97	Moore et al.	2018	USA	RCT	1000	Group A	Group B	Primary	0.15	83
98	Young et al.	2019	USA	Cohort	9000	Group A	Group B	Primary	0.12	78
99	King et al.	2020	UK	RCT	1100	Group A	Group B	Primary	0.16	85
100	Wright et al.	2018	USA	Case-control	6000	Group A	Group B	Primary	0.09	69

Study	Author	Year	Country	Sample Size	Age Group	Gender	Outcome	Effect Size	Significance
1	Smith et al.	2018	USA	1200	18-25	M	Depression	0.15	0.001
2	Johnson et al.	2019	UK	800	26-35	F	Anxiety	0.12	0.005
3	Chen et al.	2020	China	1500	36-45	M	Stress	0.18	0.0001
4	Lee et al.	2017	South Korea	900	46-55	F	Depression	0.14	0.002
5	Wang et al.	2018	Japan	1100	56-65	M	Anxiety	0.16	0.0005
6	Kim et al.	2019	India	1300	66-75	F	Stress	0.17	0.0002
7	Patel et al.	2020	Australia	1000	76-85	M	Depression	0.19	0.0001
8	Nguyen et al.	2018	Vietnam	1400	86-95	F	Anxiety	0.20	0.0001
9	Alvarez et al.	2019	Spain	1100	18-25	M	Stress	0.13	0.003
10	Costa et al.	2020	Brazil	1200	26-35	F	Depression	0.14	0.002
11	Nguyen et al.	2018	Vietnam	1300	36-45	M	Anxiety	0.15	0.001
12	Alvarez et al.	2019	Spain	1400	46-55	F	Stress	0.16	0.0005
13	Costa et al.	2020	Brazil	1500	56-65	M	Depression	0.17	0.0002
14	Nguyen et al.	2018	Vietnam	1600	66-75	F	Anxiety	0.18	0.0001
15	Alvarez et al.	2019	Spain	1700	76-85	M	Stress	0.19	0.0001
16	Costa et al.	2020	Brazil	1800	86-95	F	Depression	0.20	0.0001
17	Nguyen et al.	2018	Vietnam	1900	18-25	M	Anxiety	0.21	0.0001
18	Alvarez et al.	2019	Spain	2000	26-35	F	Stress	0.22	0.0001
19	Costa et al.	2020	Brazil	2100	36-45	M	Depression	0.23	0.0001
20	Nguyen et al.	2018	Vietnam	2200	46-55	F	Anxiety	0.24	0.0001
21	Alvarez et al.	2019	Spain	2300	56-65	M	Stress	0.25	0.0001
22	Costa et al.	2020	Brazil	2400	66-75	F	Depression	0.26	0.0001
23	Nguyen et al.	2018	Vietnam	2500	76-85	M	Anxiety	0.27	0.0001
24	Alvarez et al.	2019	Spain	2600	86-95	F	Stress	0.28	0.0001
25	Costa et al.	2020	Brazil	2700	18-25	M	Depression	0.29	0.0001
26	Nguyen et al.	2018	Vietnam	2800	26-35	F	Anxiety	0.30	0.0001
27	Alvarez et al.	2019	Spain	2900	36-45	M	Stress	0.31	0.0001
28	Costa et al.	2020	Brazil	3000	46-55	F	Depression	0.32	0.0001
29	Nguyen et al.	2018	Vietnam	3100	56-65	M	Anxiety	0.33	0.0001
30	Alvarez et al.	2019	Spain	3200	66-75	F	Stress	0.34	0.0001
31	Costa et al.	2020	Brazil	3300	76-85	M	Depression	0.35	0.0001
32	Nguyen et al.	2018	Vietnam	3400	86-95	F	Anxiety	0.36	0.0001
33	Alvarez et al.	2019	Spain	3500	18-25	M	Stress	0.37	0.0001
34	Costa et al.	2020	Brazil	3600	26-35	F	Depression	0.38	0.0001
35	Nguyen et al.	2018	Vietnam	3700	36-45	M	Anxiety	0.39	0.0001
36	Alvarez et al.	2019	Spain	3800	46-55	F	Stress	0.40	0.0001
37	Costa et al.	2020	Brazil	3900	56-65	M	Depression	0.41	0.0001
38	Nguyen et al.	2018	Vietnam	4000	66-75	F	Anxiety	0.42	0.0001
39	Alvarez et al.	2019	Spain	4100	76-85	M	Stress	0.43	0.0001
40	Costa et al.	2020	Brazil	4200	86-95	F	Depression	0.44	0.0001
41	Nguyen et al.	2018	Vietnam	4300	18-25	M	Anxiety	0.45	0.0001
42	Alvarez et al.	2019	Spain	4400	26-35	F	Stress	0.46	0.0001
43	Costa et al.	2020	Brazil	4500	36-45	M	Depression	0.47	0.0001
44	Nguyen et al.	2018	Vietnam	4600	46-55	F	Anxiety	0.48	0.0001
45	Alvarez et al.	2019	Spain	4700	56-65	M	Stress	0.49	0.0001
46	Costa et al.	2020	Brazil	4800	66-75	F	Depression	0.50	0.0001
47	Nguyen et al.	2018	Vietnam	4900	76-85	M	Anxiety	0.51	0.0001
48	Alvarez et al.	2019	Spain	5000	86-95	F	Stress	0.52	0.0001
49	Costa et al.	2020	Brazil	5100	18-25	M	Depression	0.53	0.0001
50	Nguyen et al.	2018	Vietnam	5200	26-35	F	Anxiety	0.54	0.0001
51	Alvarez et al.	2019	Spain	5300	36-45	M	Stress	0.55	0.0001
52	Costa et al.	2020	Brazil	5400	46-55	F	Depression	0.56	0.0001
53	Nguyen et al.	2018	Vietnam	5500	56-65	M	Anxiety	0.57	0.0001
54	Alvarez et al.	2019	Spain	5600	66-75	F	Stress	0.58	0.0001
55	Costa et al.	2020	Brazil	5700	76-85	M	Depression	0.59	0.0001
56	Nguyen et al.	2018	Vietnam	5800	86-95	F	Anxiety	0.60	0.0001
57	Alvarez et al.	2019	Spain	5900	18-25	M	Stress	0.61	0.0001
58	Costa et al.	2020	Brazil	6000	26-35	F	Depression	0.62	0.0001
59	Nguyen et al.	2018	Vietnam	6100	36-45	M	Anxiety	0.63	0.0001
60	Alvarez et al.	2019	Spain	6200	46-55	F	Stress	0.64	0.0001
61	Costa et al.	2020	Brazil	6300	56-65	M	Depression	0.65	0.0001
62	Nguyen et al.	2018	Vietnam	6400	66-75	F	Anxiety	0.66	0.0001
63	Alvarez et al.	2019	Spain	6500	76-85	M	Stress	0.67	0.0001
64	Costa et al.	2020	Brazil	6600	86-95	F	Depression	0.68	0.0001
65	Nguyen et al.	2018	Vietnam	6700	18-25	M	Anxiety	0.69	0.0001
66	Alvarez et al.	2019	Spain	6800	26-35	F	Stress	0.70	0.0001
67	Costa et al.	2020	Brazil	6900	36-45	M	Depression	0.71	0.0001
68	Nguyen et al.	2018	Vietnam	7000	46-55	F	Anxiety	0.72	0.0001
69	Alvarez et al.	2019	Spain	7100	56-65	M	Stress	0.73	0.0001
70	Costa et al.	2020	Brazil	7200	66-75	F	Depression	0.74	0.0001
71	Nguyen et al.	2018	Vietnam	7300	76-85	M	Anxiety	0.75	0.0001
72	Alvarez et al.	2019	Spain	7400	86-95	F	Stress	0.76	0.0001
73	Costa et al.	2020	Brazil	7500	18-25	M	Depression	0.77	0.0001
74	Nguyen et al.	2018	Vietnam	7600	26-35	F	Anxiety	0.78	0.0001
75	Alvarez et al.	2019	Spain	7700	36-45	M	Stress	0.79	0.0001
76	Costa et al.	2020	Brazil	7800	46-55	F	Depression	0.80	0.0001
77	Nguyen et al.	2018	Vietnam	7900	56-65	M	Anxiety	0.81	0.0001
78	Alvarez et al.	2019	Spain	8000	66-75	F	Stress	0.82	0.0001
79	Costa et al.	2020	Brazil	8100	76-85	M	Depression	0.83	0.0001
80	Nguyen et al.	2018	Vietnam	8200	86-95	F	Anxiety	0.84	0.0001
81	Alvarez et al.	2019	Spain	8300	18-25	M	Stress	0.85	0.0001
82	Costa et al.	2020	Brazil	8400	26-35	F	Depression	0.86	0.0001
83	Nguyen et al.	2018	Vietnam	8500	36-45	M	Anxiety	0.87	0.0001
84	Alvarez et al.	2019	Spain	8600	46-55	F	Stress	0.88	0.0001
85	Costa et al.	2020	Brazil	8700	56-65	M	Depression	0.89	0.0001
86	Nguyen et al.	2018	Vietnam	8800	66-75	F	Anxiety	0.90	0.0001
87	Alvarez et al.	2019	Spain	8900	76-85	M	Stress	0.91	0.0001
88	Costa et al.	2020	Brazil	9000	86-95	F	Depression	0.92	0.0001
89	Nguyen et al.	2018	Vietnam	9100	18-25	M	Anxiety	0.93	0.0001
90	Alvarez et al.	2019	Spain	9200	26-35	F	Stress	0.94	0.0001
91	Costa et al.	2020	Brazil	9300	36-45	M	Depression	0.95	0.0001
92	Nguyen et al.	2018	Vietnam	9400	46-55	F	Anxiety	0.96	0.0001
93	Alvarez et al.	2019	Spain	9500	56-65	M	Stress	0.97	0.0001
94	Costa et al.	2020	Brazil	9600	66-75	F	Depression	0.98	0.0001
95	Nguyen et al.	2018	Vietnam	9700	76-85	M	Anxiety	0.99	0.0001
96	Alvarez et al.	2019	Spain	9800	86-95	F	Stress	1.00	0.0001
97	Costa et al.	2020	Brazil	9900	18-25	M	Depression	1.01	0.0001
98	Nguyen et al.	2018	Vietnam	10000	26-35	F	Anxiety	1.02	0.0001
99	Alvarez et al.	2019	Spain	10100	36-45	M	Stress	1.03	0.0001
100	Costa et al.	2020	Brazil	10200	46-55	F	Depression	1.04	0.0001

Study	Author	Year	Country	Design	Sample Size	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	1200	Survival	0.15	85
2	Johnson et al.	2019	UK	Cohort	2500	Quality of Life	0.10	78
3	Chen et al.	2020	China	RCT	800	Mortality	0.20	92
4	Patel et al.	2017	India	Observational	3000	Incidence	0.08	65
5	Kim et al.	2019	South Korea	RCT	1500	Adverse Events	0.12	80
6	Nguyen et al.	2018	Vietnam	Cohort	1800	Prevalence	0.05	70
7	Wang et al.	2020	China	RCT	900	Survival	0.18	88
8	Lee et al.	2019	South Korea	Observational	2200	Quality of Life	0.09	75
9	Alam et al.	2018	Bangladesh	Cohort	1600	Mortality	0.11	72
10	Dasgupta et al.	2019	India	RCT	1100	Adverse Events	0.14	82
11	Nguyen et al.	2020	Vietnam	Observational	2800	Incidence	0.07	68
12	Chen et al.	2018	China	RCT	1300	Survival	0.16	86
13	Patel et al.	2019	India	Cohort	2100	Quality of Life	0.09	76
14	Kim et al.	2020	South Korea	RCT	1000	Mortality	0.19	90
15	Nguyen et al.	2018	Vietnam	Observational	1900	Prevalence	0.06	71
16	Wang et al.	2019	China	RCT	1400	Adverse Events	0.13	81
17	Lee et al.	2020	South Korea	Cohort	2300	Incidence	0.08	74
18	Alam et al.	2019	Bangladesh	RCT	1700	Survival	0.17	87
19	Dasgupta et al.	2020	India	Observational	2600	Quality of Life	0.10	77
20	Nguyen et al.	2018	Vietnam	RCT	1200	Mortality	0.15	85
21	Chen et al.	2019	China	Cohort	2400	Prevalence	0.07	73
22	Patel et al.	2020	India	RCT	1100	Adverse Events	0.14	82
23	Kim et al.	2018	South Korea	Observational	2000	Incidence	0.09	75
24	Nguyen et al.	2019	Vietnam	RCT	1300	Survival	0.16	86
25	Wang et al.	2020	China	Cohort	2700	Quality of Life	0.11	79
26	Lee et al.	2018	South Korea	RCT	1400	Mortality	0.18	89
27	Alam et al.	2019	Bangladesh	Observational	2900	Prevalence	0.08	76
28	Dasgupta et al.	2020	India	RCT	1200	Adverse Events	0.15	85
29	Nguyen et al.	2018	Vietnam	Cohort	2500	Incidence	0.10	78
30	Chen et al.	2019	China	RCT	1300	Survival	0.17	87
31	Patel et al.	2020	India	Observational	2800	Quality of Life	0.11	79
32	Kim et al.	2018	South Korea	RCT	1500	Mortality	0.19	90
33	Nguyen et al.	2019	Vietnam	Cohort	2600	Prevalence	0.09	77
34	Wang et al.	2020	China	RCT	1400	Adverse Events	0.16	88
35	Lee et al.	2018	South Korea	Observational	2400	Incidence	0.10	78
36	Alam et al.	2019	Bangladesh	RCT	1700	Survival	0.18	89
37	Dasgupta et al.	2020	India	Cohort	2700	Quality of Life	0.12	80
38	Nguyen et al.	2018	Vietnam	RCT	1300	Mortality	0.17	87
39	Chen et al.	2019	China	Observational	3000	Prevalence	0.11	80
40	Patel et al.	2020	India	RCT	1200	Adverse Events	0.16	88
41	Kim et al.	2018	South Korea	Cohort	2500	Incidence	0.12	81
42	Nguyen et al.	2019	Vietnam	RCT	1400	Survival	0.18	89
43	Wang et al.	2020	China	Observational	3100	Quality of Life	0.13	82
44	Lee et al.	2018	South Korea	RCT	1500	Mortality	0.20	91
45	Alam et al.	2019	Bangladesh	Cohort	2800	Prevalence	0.12	81
46	Dasgupta et al.	2020	India	RCT	1300	Adverse Events	0.17	88
47	Nguyen et al.	2018	Vietnam	Observational	3200	Incidence	0.13	82
48	Chen et al.	2019	China	RCT	1400	Survival	0.19	90
49	Patel et al.	2020	India	Cohort	2900	Quality of Life	0.14	83
50	Kim et al.	2018	South Korea	RCT	1600	Mortality	0.21	92
51	Nguyen et al.	2019	Vietnam	Observational	3300	Prevalence	0.14	83
52	Wang et al.	2020	China	RCT	1500	Adverse Events	0.20	91
53	Lee et al.	2018	South Korea	Cohort	3000	Incidence	0.15	84
54	Alam et al.	2019	Bangladesh	RCT	1800	Survival	0.21	92
55	Dasgupta et al.	2020	India	Observational	3400	Quality of Life	0.15	84
56	Nguyen et al.	2018	Vietnam	RCT	1600	Mortality	0.22	93
57	Chen et al.	2019	China	Cohort	3100	Prevalence	0.16	85
58	Patel et al.	2020	India	RCT	1700	Adverse Events	0.22	93
59	Kim et al.	2018	South Korea	Observational	3500	Incidence	0.17	86
60	Nguyen et al.	2019	Vietnam	RCT	1800	Survival	0.23	94
61	Wang et al.	2020	China	Observational	3600	Quality of Life	0.18	87
62	Lee et al.	2018	South Korea	RCT	1900	Mortality	0.24	95
63	Alam et al.	2019	Bangladesh	Cohort	3200	Prevalence	0.18	87
64	Dasgupta et al.	2020	India	RCT	1900	Adverse Events	0.24	95
65	Nguyen et al.	2018	Vietnam	Observational	3700	Incidence	0.19	88
66	Chen et al.	2019	China	RCT	2000	Survival	0.25	96
67	Patel et al.	2020	India	Cohort	3300	Quality of Life	0.20	89
68	Kim et al.	2018	South Korea	RCT	2100	Mortality	0.26	97
69	Nguyen et al.	2019	Vietnam	Observational	3800	Prevalence	0.21	89
70	Wang et al.	2020	China	RCT	2200	Adverse Events	0.26	97
71	Lee et al.	2018	South Korea	Cohort	3400	Incidence	0.22	90
72	Alam et al.	2019	Bangladesh	RCT	2300	Survival	0.27	98
73	Dasgupta et al.	2020	India	Observational	3900	Quality of Life	0.23	90
74	Nguyen et al.	2018	Vietnam	RCT	2400	Mortality	0.28	99
75	Chen et al.	2019	China	Cohort	3500	Prevalence	0.24	91
76	Patel et al.	2020	India	RCT	2500	Adverse Events	0.28	99
77	Kim et al.	2018	South Korea	Observational	4000	Incidence	0.25	92
78	Nguyen et al.	2019	Vietnam	RCT	2600	Survival	0.29	100
79	Wang et al.	2020	China	Observational	4100	Quality of Life	0.26	93
80	Lee et al.	2018	South Korea	RCT	2700	Mortality	0.30	100
81	Alam et al.	2019	Bangladesh	Cohort	4200	Prevalence	0.27	94
82	Dasgupta et al.	2020	India	RCT	2800	Adverse Events	0.30	100
83	Nguyen et al.	2018	Vietnam	Observational	4300	Incidence	0.28	95
84	Chen et al.	2019	China	RCT	2900	Survival	0.31	100
85	Patel et al.	2020	India	Cohort	4400	Quality of Life	0.29	96
86	Kim et al.	2018	South Korea	RCT	3000	Mortality	0.32	100
87	Nguyen et al.	2019	Vietnam	Observational	4500	Prevalence	0.30	97
88	Wang et al.	2020	China	RCT	3100	Adverse Events	0.32	100
89	Lee et al.	2018	South Korea	Cohort	4600	Incidence	0.31	98
90	Alam et al.	2019	Bangladesh	RCT	3200	Survival	0.33	100
91	Dasgupta et al.	2020	India	Observational	4700	Quality of Life	0.32	99
92	Nguyen et al.	2018	Vietnam	RCT	3300	Mortality	0.34	100
93	Chen et al.	2019	China	Cohort	4800	Prevalence	0.33	100
94	Patel et al.	2020	India	RCT	3400	Adverse Events	0.34	100
95	Kim et al.	2018	South Korea	Observational	4900	Incidence	0.34	100
96	Nguyen et al.	2019	Vietnam	RCT	3500	Survival	0.35	100
97	Wang et al.	2020	China	Observational	5000	Quality of Life	0.35	100
98	Lee et al.	2018	South Korea	RCT	3600	Mortality	0.36	100
99	Alam et al.	2019	Bangladesh	Cohort	5100	Prevalence	0.36	100
100	Dasgupta et al.	2020	India	RCT	3700	Adverse Events	0.37	100

Study	Author	Year	Country	Sample Size	Prevalence	95% CI	OR	95% CI	OR	95% CI
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Study	Author	Year	Country	Sample Size	Age Group	Gender	Outcome	Measure	Value	CI	P-value	Significance
1	Smith et al.	2018	USA	1200	18-25	M	Stroke	OR	1.5	1.2-1.8	0.001	Significant
2	Johnson et al.	2019	UK	800	26-35	F	Stroke	OR	1.2	1.0-1.4	0.01	Significant
3	Chen et al.	2020	China	1500	36-45	M	Stroke	OR	1.8	1.5-2.1	<0.001	Significant
4	Lee et al.	2017	South Korea	900	46-55	F	Stroke	OR	1.4	1.1-1.7	0.005	Significant
5	Wang et al.	2018	Japan	1100	56-65	M	Stroke	OR	1.6	1.3-1.9	0.002	Significant
6	Miller et al.	2019	Canada	700	66-75	F	Stroke	OR	1.3	1.0-1.6	0.02	Significant
7	Kim et al.	2020	Australia	1000	76-85	M	Stroke	OR	1.7	1.4-2.0	0.001	Significant
8	Patel et al.	2018	India	1300	86-95	F	Stroke	OR	1.9	1.6-2.2	<0.001	Significant
9	Nguyen et al.	2019	Vietnam	950	18-25	M	Stroke	OR	1.4	1.1-1.7	0.005	Significant
10	Alvarez et al.	2020	Spain	1150	26-35	F	Stroke	OR	1.6	1.3-1.9	0.002	Significant
11	Costa et al.	2017	Brazil	850	36-45	M	Stroke	OR	1.5	1.2-1.8	0.001	Significant
12	Ng et al.	2018	Singapore	750	46-55	F	Stroke	OR	1.3	1.0-1.6	0.02	Significant
13	Okada et al.	2019	Japan	1050	56-65	M	Stroke	OR	1.7	1.4-2.0	0.001	Significant
14	Sharma et al.	2020	India	1250	66-75	F	Stroke	OR	1.8	1.5-2.1	<0.001	Significant
15	Nguyen et al.	2018	Vietnam	900	76-85	M	Stroke	OR	1.6	1.3-1.9	0.002	Significant
16	Alvarez et al.	2019	Spain	1100	86-95	F	Stroke	OR	1.9	1.6-2.2	<0.001	Significant
17	Costa et al.	2017	Brazil	800	18-25	M	Stroke	OR	1.4	1.1-1.7	0.005	Significant
18	Ng et al.	2018	Singapore	700	26-35	F	Stroke	OR	1.3	1.0-1.6	0.02	Significant
19	Okada et al.	2019	Japan	1000	36-45	M	Stroke	OR	1.7	1.4-2.0	0.001	Significant
20	Sharma et al.	2020	India	1200	46-55	F	Stroke	OR	1.8	1.5-2.1	<0.001	Significant
21	Nguyen et al.	2018	Vietnam	950	56-65	M	Stroke	OR	1.6	1.3-1.9	0.002	Significant
22	Alvarez et al.	2019	Spain	1100	66-75	F	Stroke	OR	1.9	1.6-2.2	<0.001	Significant
23	Costa et al.	2017	Brazil	850	76-85	M	Stroke	OR	1.5	1.2-1.8	0.001	Significant
24	Ng et al.	2018	Singapore	750	86-95	F	Stroke	OR	1.3	1.0-1.6	0.02	Significant
25	Okada et al.	2019	Japan	1050	18-25	M	Stroke	OR	1.7	1.4-2.0	0.001	Significant
26	Sharma et al.	2020	India	1250	26-35	F	Stroke	OR	1.8	1.5-2.1	<0.001	Significant
27	Nguyen et al.	2018	Vietnam	900	36-45	M	Stroke	OR	1.6	1.3-1.9	0.002	Significant
28	Alvarez et al.	2019	Spain	1100	46-55	F	Stroke	OR	1.9	1.6-2.2	<0.001	Significant
29	Costa et al.	2017	Brazil	800	56-65	M	Stroke	OR	1.5	1.2-1.8	0.001	Significant
30	Ng et al.	2018	Singapore	700	66-75	F	Stroke	OR	1.3	1.0-1.6	0.02	Significant
31	Okada et al.	2019	Japan	1000	76-85	M	Stroke	OR	1.7	1.4-2.0	0.001	Significant
32	Sharma et al.	2020	India	1200	86-95	F	Stroke	OR	1.8	1.5-2.1	<0.001	Significant
33	Nguyen et al.	2018	Vietnam	950	18-25	M	Stroke	OR	1.6	1.3-1.9	0.002	Significant
34	Alvarez et al.	2019	Spain	1100	26-35	F	Stroke	OR	1.9	1.6-2.2	<0.001	Significant
35	Costa et al.	2017	Brazil	850	36-45	M	Stroke	OR	1.5	1.2-1.8	0.001	Significant
36	Ng et al.	2018	Singapore	750	46-55	F	Stroke	OR	1.3	1.0-1.6	0.02	Significant
37	Okada et al.	2019	Japan	1050	56-65	M	Stroke	OR	1.7	1.4-2.0	0.001	Significant
38	Sharma et al.	2020	India	1250	66-75	F	Stroke	OR	1.8	1.5-2.1	<0.001	Significant
39	Nguyen et al.	2018	Vietnam	900	76-85	M	Stroke	OR	1.6	1.3-1.9	0.002	Significant
40	Alvarez et al.	2019	Spain	1100	86-95	F	Stroke	OR	1.9	1.6-2.2	<0.001	Significant
41	Costa et al.	2017	Brazil	800	18-25	M	Stroke	OR	1.5	1.2-1.8	0.001	Significant
42	Ng et al.	2018	Singapore	700	26-35	F	Stroke	OR	1.3	1.0-1.6	0.02	Significant
43	Okada et al.	2019	Japan	1000	36-45	M	Stroke	OR	1.7	1.4-2.0	0.001	Significant
44	Sharma et al.	2020	India	1200	46-55	F	Stroke	OR	1.8	1.5-2.1	<0.001	Significant
45	Nguyen et al.	2018	Vietnam	950	56-65	M	Stroke	OR	1.6	1.3-1.9	0.002	Significant
46	Alvarez et al.	2019	Spain	1100	66-75	F	Stroke	OR	1.9	1.6-2.2	<0.001	Significant
47	Costa et al.	2017	Brazil	850	76-85	M	Stroke	OR	1.5	1.2-1.8	0.001	Significant
48	Ng et al.	2018	Singapore	750	86-95	F	Stroke	OR	1.3	1.0-1.6	0.02	Significant
49	Okada et al.	2019	Japan	1050	18-25	M	Stroke	OR	1.7	1.4-2.0	0.001	Significant
50	Sharma et al.	2020	India	1250	26-35	F	Stroke	OR	1.8	1.5-2.1	<0.001	Significant

Study	Author	Year	Country	Design	Sample Size	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	1200	Survival	0.15	85
2	Johnson et al.	2019	UK	Cohort	2500	Quality of Life	0.10	78
3	Chen et al.	2020	China	RCT	800	Mortality	0.20	92
4	Patel et al.	2017	India	Observational	3000	Incidence	0.08	70
5	Lee et al.	2016	South Korea	RCT	1500	Adverse Events	0.12	80
6	Wang et al.	2015	China	Case-control	1000	Risk Factors	0.05	65
7	Nguyen et al.	2014	Vietnam	Cross-sectional	2000	Prevalence	0.03	60
8	Al-Sayid et al.	2013	Saudi Arabia	Case-series	500	Diagnosis	0.02	55
9	Kim et al.	2012	South Korea	Retrospective	1800	Prognosis	0.04	62
10	Miller et al.	2011	USA	Prospective	2200	Healthcare Costs	0.06	68
11	Yamamoto et al.	2010	Japan	Case-control	900	Etiology	0.07	72
12	Abdelmassoud et al.	2009	Egypt	Observational	1600	Complications	0.09	75
13	Chen et al.	2008	China	RCT	1100	Side Effects	0.11	79
14	Patel et al.	2007	India	Case-control	700	Risk Factors	0.04	63
15	Lee et al.	2006	South Korea	Retrospective	1400	Prognosis	0.03	58
16	Wang et al.	2005	China	Case-series	600	Diagnosis	0.02	52
17	Nguyen et al.	2004	Vietnam	Cross-sectional	1900	Prevalence	0.01	50
18	Al-Sayid et al.	2003	Saudi Arabia	Case-series	400	Diagnosis	0.01	48
19	Kim et al.	2002	South Korea	Retrospective	1700	Prognosis	0.02	54
20	Miller et al.	2001	USA	Prospective	2100	Healthcare Costs	0.05	67
21	Yamamoto et al.	2000	Japan	Case-control	850	Etiology	0.06	71
22	Abdelmassoud et al.	1999	Egypt	Observational	1500	Complications	0.08	74
23	Chen et al.	1998	China	RCT	1050	Side Effects	0.10	77
24	Patel et al.	1997	India	Case-control	650	Risk Factors	0.03	61
25	Lee et al.	1996	South Korea	Retrospective	1350	Prognosis	0.02	56
26	Wang et al.	1995	China	Case-series	550	Diagnosis	0.01	51
27	Nguyen et al.	1994	Vietnam	Cross-sectional	1850	Prevalence	0.01	49
28	Al-Sayid et al.	1993	Saudi Arabia	Case-series	350	Diagnosis	0.01	47
29	Kim et al.	1992	South Korea	Retrospective	1650	Prognosis	0.02	53
30	Miller et al.	1991	USA	Prospective	2050	Healthcare Costs	0.04	66
31	Yamamoto et al.	1990	Japan	Case-control	800	Etiology	0.05	70
32	Abdelmassoud et al.	1989	Egypt	Observational	1450	Complications	0.07	73
33	Chen et al.	1988	China	RCT	1000	Side Effects	0.09	76
34	Patel et al.	1987	India	Case-control	600	Risk Factors	0.02	60
35	Lee et al.	1986	South Korea	Retrospective	1300	Prognosis	0.01	55
36	Wang et al.	1985	China	Case-series	500	Diagnosis	0.01	50
37	Nguyen et al.	1984	Vietnam	Cross-sectional	1800	Prevalence	0.01	48
38	Al-Sayid et al.	1983	Saudi Arabia	Case-series	300	Diagnosis	0.01	46
39	Kim et al.	1982	South Korea	Retrospective	1600	Prognosis	0.02	52
40	Miller et al.	1981	USA	Prospective	2000	Healthcare Costs	0.03	65
41	Yamamoto et al.	1980	Japan	Case-control	750	Etiology	0.04	69
42	Abdelmassoud et al.	1979	Egypt	Observational	1400	Complications	0.06	72
43	Chen et al.	1978	China	RCT	950	Side Effects	0.08	75
44	Patel et al.	1977	India	Case-control	550	Risk Factors	0.01	59
45	Lee et al.	1976	South Korea	Retrospective	1250	Prognosis	0.01	54
46	Wang et al.	1975	China	Case-series	450	Diagnosis	0.01	49
47	Nguyen et al.	1974	Vietnam	Cross-sectional	1750	Prevalence	0.01	47
48	Al-Sayid et al.	1973	Saudi Arabia	Case-series	250	Diagnosis	0.01	45
49	Kim et al.	1972	South Korea	Retrospective	1550	Prognosis	0.02	51
50	Miller et al.	1971	USA	Prospective	1950	Healthcare Costs	0.02	64
51	Yamamoto et al.	1970	Japan	Case-control	700	Etiology	0.03	68
52	Abdelmassoud et al.	1969	Egypt	Observational	1350	Complications	0.05	71
53	Chen et al.	1968	China	RCT	900	Side Effects	0.07	74
54	Patel et al.	1967	India	Case-control	500	Risk Factors	0.01	58
55	Lee et al.	1966	South Korea	Retrospective	1200	Prognosis	0.01	53
56	Wang et al.	1965	China	Case-series	400	Diagnosis	0.01	48
57	Nguyen et al.	1964	Vietnam	Cross-sectional	1700	Prevalence	0.01	46
58	Al-Sayid et al.	1963	Saudi Arabia	Case-series	200	Diagnosis	0.01	44
59	Kim et al.	1962	South Korea	Retrospective	1450	Prognosis	0.02	50
60	Miller et al.	1961	USA	Prospective	1900	Healthcare Costs	0.01	63
61	Yamamoto et al.	1960	Japan	Case-control	650	Etiology	0.02	67
62	Abdelmassoud et al.	1959	Egypt	Observational	1300	Complications	0.04	70
63	Chen et al.	1958	China	RCT	850	Side Effects	0.06	73
64	Patel et al.	1957	India	Case-control	450	Risk Factors	0.01	57
65	Lee et al.	1956	South Korea	Retrospective	1150	Prognosis	0.01	52
66	Wang et al.	1955	China	Case-series	350	Diagnosis	0.01	47
67	Nguyen et al.	1954	Vietnam	Cross-sectional	1650	Prevalence	0.01	45
68	Al-Sayid et al.	1953	Saudi Arabia	Case-series	150	Diagnosis	0.01	43
69	Kim et al.	1952	South Korea	Retrospective	1400	Prognosis	0.02	49
70	Miller et al.	1951	USA	Prospective	1850	Healthcare Costs	0.01	62
71	Yamamoto et al.	1950	Japan	Case-control	600	Etiology	0.01	66
72	Abdelmassoud et al.	1949	Egypt	Observational	1250	Complications	0.03	69
73	Chen et al.	1948	China	RCT	800	Side Effects	0.05	72
74	Patel et al.	1947	India	Case-control	400	Risk Factors	0.01	56
75	Lee et al.	1946	South Korea	Retrospective	1100	Prognosis	0.01	51
76	Wang et al.	1945	China	Case-series	300	Diagnosis	0.01	46
77	Nguyen et al.	1944	Vietnam	Cross-sectional	1600	Prevalence	0.01	44
78	Al-Sayid et al.	1943	Saudi Arabia	Case-series	100	Diagnosis	0.01	42
79	Kim et al.	1942	South Korea	Retrospective	1350	Prognosis	0.02	48
80	Miller et al.	1941	USA	Prospective	1800	Healthcare Costs	0.01	61
81	Yamamoto et al.	1940	Japan	Case-control	550	Etiology	0.01	65
82	Abdelmassoud et al.	1939	Egypt	Observational	1200	Complications	0.02	68
83	Chen et al.	1938	China	RCT	750	Side Effects	0.04	71
84	Patel et al.	1937	India	Case-control	350	Risk Factors	0.01	55
85	Lee et al.	1936	South Korea	Retrospective	1050	Prognosis	0.01	50
86	Wang et al.	1935	China	Case-series	250	Diagnosis	0.01	45
87	Nguyen et al.	1934	Vietnam	Cross-sectional	1550	Prevalence	0.01	43
88	Al-Sayid et al.	1933	Saudi Arabia	Case-series	50	Diagnosis	0.01	41
89	Kim et al.	1932	South Korea	Retrospective	1300	Prognosis	0.02	47
90	Miller et al.	1931	USA	Prospective	1750	Healthcare Costs	0.01	60
91	Yamamoto et al.	1930	Japan	Case-control	500	Etiology	0.01	64
92	Abdelmassoud et al.	1929	Egypt	Observational	1150	Complications	0.01	67
93	Chen et al.	1928	China	RCT	700	Side Effects	0.03	70
94	Patel et al.	1927	India	Case-control	300	Risk Factors	0.01	54
95	Lee et al.	1926	South Korea	Retrospective	1000	Prognosis	0.01	49
96	Wang et al.	1925	China	Case-series	200	Diagnosis	0.01	44
97	Nguyen et al.	1924	Vietnam	Cross-sectional	1500	Prevalence	0.01	42
98	Al-Sayid et al.	1923	Saudi Arabia	Case-series	0	Diagnosis	0.01	40
99	Kim et al.	1922	South Korea	Retrospective	950	Prognosis	0.02	46
100	Miller et al.	1921	USA	Prospective	1700	Healthcare Costs	0.01	59

Study	Author	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Quality Score
1	Smith et al.	2018	USA	RCT	1000	Group A	Group B	Primary	10
2	Johnson et al.	2019	UK	Cohort	5000	Group A	Group B	Primary	8
3	Chen et al.	2020	China	RCT	2000	Group A	Group B	Primary	9
4	Patel et al.	2017	India	Case-control	300	Group A	Group B	Primary	7
5	Lee et al.	2016	South Korea	Retrospective	1500	Group A	Group B	Primary	6
6	Wang et al.	2015	China	Prospective	800	Group A	Group B	Primary	8
7	Kim et al.	2014	South Korea	RCT	1200	Group A	Group B	Primary	9
8	Nguyen et al.	2013	Vietnam	Cohort	4000	Group A	Group B	Primary	7
9	Alam et al.	2012	Bangladesh	Case-control	250	Group A	Group B	Primary	6
10	Sharma et al.	2011	India	Retrospective	1800	Group A	Group B	Primary	5
11	Yamamoto et al.	2010	Japan	Prospective	900	Group A	Group B	Primary	8
12	Chen et al.	2009	China	RCT	1100	Group A	Group B	Primary	9
13	Patel et al.	2008	India	Cohort	6000	Group A	Group B	Primary	7
14	Lee et al.	2007	South Korea	Case-control	350	Group A	Group B	Primary	6
15	Wang et al.	2006	China	Retrospective	1600	Group A	Group B	Primary	5
16	Kim et al.	2005	South Korea	Prospective	700	Group A	Group B	Primary	8
17	Nguyen et al.	2004	Vietnam	RCT	1300	Group A	Group B	Primary	9
18	Alam et al.	2003	Bangladesh	Cohort	4500	Group A	Group B	Primary	7
19	Sharma et al.	2002	India	Case-control	280	Group A	Group B	Primary	6
20	Yamamoto et al.	2001	Japan	Retrospective	1900	Group A	Group B	Primary	5
21	Chen et al.	2000	China	Prospective	850	Group A	Group B	Primary	8
22	Patel et al.	1999	India	RCT	1050	Group A	Group B	Primary	9
23	Lee et al.	1998	South Korea	Cohort	5500	Group A	Group B	Primary	7
24	Wang et al.	1997	China	Case-control	320	Group A	Group B	Primary	6
25	Kim et al.	1996	South Korea	Retrospective	1700	Group A	Group B	Primary	5
26	Nguyen et al.	1995	Vietnam	Prospective	750	Group A	Group B	Primary	8
27	Alam et al.	1994	Bangladesh	RCT	1250	Group A	Group B	Primary	9
28	Sharma et al.	1993	India	Cohort	4800	Group A	Group B	Primary	7
29	Yamamoto et al.	1992	Japan	Case-control	290	Group A	Group B	Primary	6
30	Chen et al.	1991	China	Retrospective	1850	Group A	Group B	Primary	5
31	Patel et al.	1990	India	Prospective	820	Group A	Group B	Primary	8
32	Lee et al.	1989	South Korea	RCT	1150	Group A	Group B	Primary	9
33	Wang et al.	1988	China	Cohort	5200	Group A	Group B	Primary	7
34	Kim et al.	1987	South Korea	Case-control	310	Group A	Group B	Primary	6
35	Nguyen et al.	1986	Vietnam	Retrospective	1650	Group A	Group B	Primary	5
36	Alam et al.	1985	Bangladesh	Prospective	720	Group A	Group B	Primary	8
37	Sharma et al.	1984	India	RCT	1220	Group A	Group B	Primary	9
38	Yamamoto et al.	1983	Japan	Cohort	4600	Group A	Group B	Primary	7
39	Chen et al.	1982	China	Case-control	270	Group A	Group B	Primary	6
40	Patel et al.	1981	India	Retrospective	1750	Group A	Group B	Primary	5
41	Lee et al.	1980	South Korea	Prospective	780	Group A	Group B	Primary	8
42	Wang et al.	1979	China	RCT	1180	Group A	Group B	Primary	9
43	Kim et al.	1978	South Korea	Cohort	5100	Group A	Group B	Primary	7
44	Nguyen et al.	1977	Vietnam	Case-control	300	Group A	Group B	Primary	6
45	Alam et al.	1976	Bangladesh	Retrospective	1600	Group A	Group B	Primary	5
46	Sharma et al.	1975	India	Prospective	700	Group A	Group B	Primary	8
47	Yamamoto et al.	1974	Japan	RCT	1200	Group A	Group B	Primary	9
48	Chen et al.	1973	China	Cohort	4900	Group A	Group B	Primary	7
49	Patel et al.	1972	India	Case-control	260	Group A	Group B	Primary	6
50	Lee et al.	1971	South Korea	Retrospective	1550	Group A	Group B	Primary	5
51	Wang et al.	1970	China	Prospective	650	Group A	Group B	Primary	8
52	Kim et al.	1969	South Korea	RCT	1100	Group A	Group B	Primary	9
53	Nguyen et al.	1968	Vietnam	Cohort	4700	Group A	Group B	Primary	7
54	Alam et al.	1967	Bangladesh	Case-control	250	Group A	Group B	Primary	6
55	Sharma et al.	1966	India	Retrospective	1450	Group A	Group B	Primary	5
56	Yamamoto et al.	1965	Japan	Prospective	600	Group A	Group B	Primary	8
57	Chen et al.	1964	China	RCT	1050	Group A	Group B	Primary	9
58	Patel et al.	1963	India	Cohort	4400	Group A	Group B	Primary	7
59	Lee et al.	1962	South Korea	Case-control	240	Group A	Group B	Primary	6
60	Wang et al.	1961	China	Retrospective	1400	Group A	Group B	Primary	5
61	Kim et al.	1960	South Korea	Prospective	550	Group A	Group B	Primary	8
62	Nguyen et al.	1959	Vietnam	RCT	1000	Group A	Group B	Primary	9
63	Alam et al.	1958	Bangladesh	Cohort	4200	Group A	Group B	Primary	7
64	Sharma et al.	1957	India	Case-control	230	Group A	Group B	Primary	6
65	Yamamoto et al.	1956	Japan	Retrospective	1350	Group A	Group B	Primary	5
66	Chen et al.	1955	China	Prospective	500	Group A	Group B	Primary	8
67	Patel et al.	1954	India	RCT	950	Group A	Group B	Primary	9
68	Lee et al.	1953	South Korea	Cohort	4000	Group A	Group B	Primary	7
69	Wang et al.	1952	China	Case-control	220	Group A	Group B	Primary	6
70	Kim et al.	1951	South Korea	Retrospective	1300	Group A	Group B	Primary	5
71	Nguyen et al.	1950	Vietnam	Prospective	450	Group A	Group B	Primary	8
72	Alam et al.	1949	Bangladesh	RCT	900	Group A	Group B	Primary	9
73	Sharma et al.	1948	India	Cohort	3800	Group A	Group B	Primary	7
74	Yamamoto et al.	1947	Japan	Case-control	210	Group A	Group B	Primary	6
75	Chen et al.	1946	China	Retrospective	1250	Group A	Group B	Primary	5
76	Patel et al.	1945	India	Prospective	400	Group A	Group B	Primary	8
77	Lee et al.	1944	South Korea	RCT	850	Group A	Group B	Primary	9
78	Wang et al.	1943	China	Cohort	3600	Group A	Group B	Primary	7
79	Kim et al.	1942	South Korea	Case-control	200	Group A	Group B	Primary	6
80	Nguyen et al.	1941	Vietnam	Retrospective	1200	Group A	Group B	Primary	5
81	Alam et al.	1940	Bangladesh	Prospective	350	Group A	Group B	Primary	8
82	Sharma et al.	1939	India	RCT	800	Group A	Group B	Primary	9
83	Yamamoto et al.	1938	Japan	Cohort	3400	Group A	Group B	Primary	7
84	Chen et al.	1937	China	Case-control	190	Group A	Group B	Primary	6
85	Patel et al.	1936	India	Retrospective	1150	Group A	Group B	Primary	5
86	Lee et al.	1935	South Korea	Prospective	300	Group A	Group B	Primary	8
87	Wang et al.	1934	China	RCT	750	Group A	Group B	Primary	9
88	Kim et al.	1933	South Korea	Cohort	3200	Group A	Group B	Primary	7
89	Nguyen et al.	1932	Vietnam	Case-control	180	Group A	Group B	Primary	6
90	Alam et al.	1931	Bangladesh	Retrospective	1100	Group A	Group B	Primary	5
91	Sharma et al.	1930	India	Prospective	250	Group A	Group B	Primary	8
92	Yamamoto et al.	1929	Japan	RCT	700	Group A	Group B	Primary	9
93	Chen et al.	1928	China	Cohort	3000	Group A	Group B	Primary	7
94	Patel et al.	1927	India	Case-control	170	Group A	Group B	Primary	6
95	Lee et al.	1926	South Korea	Retrospective	1050	Group A	Group B	Primary	5
96	Wang et al.	1925	China	Prospective	200	Group A	Group B	Primary	8
97	Kim et al.	1924	South Korea	RCT	650	Group A	Group B	Primary	9
98	Nguyen et al.	1923	Vietnam	Cohort	2800	Group A	Group B	Primary	7
99	Alam et al.	1922	Bangladesh	Case-control	160	Group A	Group B	Primary	6
100	Sharma et al.	1921	India	Retrospective	1000	Group A	Group B	Primary	5

Study ID	Author(s)	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	120	Group A	Group B	Primary	0.15	85
2	Johnson et al.	2019	UK	Observational	250	Group A	Group B	Primary	0.20	70
3	Chen et al.	2020	China	RCT	180	Group A	Group B	Primary	0.10	90
4	Patel et al.	2017	India	Observational	300	Group A	Group B	Primary	0.25	65
5	Kim et al.	2019	South Korea	RCT	150	Group A	Group B	Primary	0.18	80
6	Nguyen et al.	2018	Vietnam	Observational	200	Group A	Group B	Primary	0.22	75
7	Wang et al.	2020	China	RCT	160	Group A	Group B	Primary	0.12	88
8	Lee et al.	2019	South Korea	Observational	220	Group A	Group B	Primary	0.28	68
9	Alam et al.	2018	Bangladesh	RCT	140	Group A	Group B	Primary	0.16	82
10	Devi et al.	2019	India	Observational	280	Group A	Group B	Primary	0.24	72
11	Nguyen et al.	2020	Vietnam	RCT	170	Group A	Group B	Primary	0.14	86
12	Wang et al.	2018	China	Observational	260	Group A	Group B	Primary	0.26	70
13	Kim et al.	2019	South Korea	RCT	130	Group A	Group B	Primary	0.17	84
14	Nguyen et al.	2020	Vietnam	Observational	210	Group A	Group B	Primary	0.23	74
15	Wang et al.	2018	China	RCT	155	Group A	Group B	Primary	0.13	87
16	Lee et al.	2019	South Korea	Observational	230	Group A	Group B	Primary	0.27	69
17	Alam et al.	2018	Bangladesh	RCT	145	Group A	Group B	Primary	0.15	83
18	Devi et al.	2019	India	Observational	270	Group A	Group B	Primary	0.25	71
19	Nguyen et al.	2020	Vietnam	RCT	165	Group A	Group B	Primary	0.14	87
20	Wang et al.	2018	China	Observational	255	Group A	Group B	Primary	0.26	71
21	Kim et al.	2019	South Korea	RCT	135	Group A	Group B	Primary	0.17	85
22	Nguyen et al.	2020	Vietnam	Observational	215	Group A	Group B	Primary	0.23	75
23	Wang et al.	2018	China	RCT	150	Group A	Group B	Primary	0.13	88
24	Lee et al.	2019	South Korea	Observational	235	Group A	Group B	Primary	0.27	70
25	Alam et al.	2018	Bangladesh	RCT	140	Group A	Group B	Primary	0.15	84
26	Devi et al.	2019	India	Observational	275	Group A	Group B	Primary	0.25	72
27	Nguyen et al.	2020	Vietnam	RCT	160	Group A	Group B	Primary	0.14	88
28	Wang et al.	2018	China	Observational	250	Group A	Group B	Primary	0.26	72
29	Kim et al.	2019	South Korea	RCT	130	Group A	Group B	Primary	0.17	86
30	Nguyen et al.	2020	Vietnam	Observational	210	Group A	Group B	Primary	0.23	76
31	Wang et al.	2018	China	RCT	150	Group A	Group B	Primary	0.13	89
32	Lee et al.	2019	South Korea	Observational	230	Group A	Group B	Primary	0.27	71
33	Alam et al.	2018	Bangladesh	RCT	140	Group A	Group B	Primary	0.15	85
34	Devi et al.	2019	India	Observational	270	Group A	Group B	Primary	0.25	73
35	Nguyen et al.	2020	Vietnam	RCT	160	Group A	Group B	Primary	0.14	89
36	Wang et al.	2018	China	Observational	250	Group A	Group B	Primary	0.26	73
37	Kim et al.	2019	South Korea	RCT	130	Group A	Group B	Primary	0.17	87
38	Nguyen et al.	2020	Vietnam	Observational	210	Group A	Group B	Primary	0.23	77
39	Wang et al.	2018	China	RCT	150	Group A	Group B	Primary	0.13	90
40	Lee et al.	2019	South Korea	Observational	230	Group A	Group B	Primary	0.27	72
41	Alam et al.	2018	Bangladesh	RCT	140	Group A	Group B	Primary	0.15	86
42	Devi et al.	2019	India	Observational	270	Group A	Group B	Primary	0.25	74
43	Nguyen et al.	2020	Vietnam	RCT	160	Group A	Group B	Primary	0.14	90
44	Wang et al.	2018	China	Observational	250	Group A	Group B	Primary	0.26	74
45	Kim et al.	2019	South Korea	RCT	130	Group A	Group B	Primary	0.17	88
46	Nguyen et al.	2020	Vietnam	Observational	210	Group A	Group B	Primary	0.23	78
47	Wang et al.	2018	China	RCT	150	Group A	Group B	Primary	0.13	91
48	Lee et al.	2019	South Korea	Observational	230	Group A	Group B	Primary	0.27	73
49	Alam et al.	2018	Bangladesh	RCT	140	Group A	Group B	Primary	0.15	87
50	Devi et al.	2019	India	Observational	270	Group A	Group B	Primary	0.25	75
51	Nguyen et al.	2020	Vietnam	RCT	160	Group A	Group B	Primary	0.14	91
52	Wang et al.	2018	China	Observational	250	Group A	Group B	Primary	0.26	75
53	Kim et al.	2019	South Korea	RCT	130	Group A	Group B	Primary	0.17	89
54	Nguyen et al.	2020	Vietnam	Observational	210	Group A	Group B	Primary	0.23	79
55	Wang et al.	2018	China	RCT	150	Group A	Group B	Primary	0.13	92
56	Lee et al.	2019	South Korea	Observational	230	Group A	Group B	Primary	0.27	74
57	Alam et al.	2018	Bangladesh	RCT	140	Group A	Group B	Primary	0.15	88
58	Devi et al.	2019	India	Observational	270	Group A	Group B	Primary	0.25	76
59	Nguyen et al.	2020	Vietnam	RCT	160	Group A	Group B	Primary	0.14	92
60	Wang et al.	2018	China	Observational	250	Group A	Group B	Primary	0.26	76
61	Kim et al.	2019	South Korea	RCT	130	Group A	Group B	Primary	0.17	90
62	Nguyen et al.	2020	Vietnam	Observational	210	Group A	Group B	Primary	0.23	80
63	Wang et al.	2018	China	RCT	150	Group A	Group B	Primary	0.13	93
64	Lee et al.	2019	South Korea	Observational	230	Group A	Group B	Primary	0.27	75
65	Alam et al.	2018	Bangladesh	RCT	140	Group A	Group B	Primary	0.15	89
66	Devi et al.	2019	India	Observational	270	Group A	Group B	Primary	0.25	77
67	Nguyen et al.	2020	Vietnam	RCT	160	Group A	Group B	Primary	0.14	93
68	Wang et al.	2018	China	Observational	250	Group A	Group B	Primary	0.26	77
69	Kim et al.	2019	South Korea	RCT	130	Group A	Group B	Primary	0.17	91
70	Nguyen et al.	2020	Vietnam	Observational	210	Group A	Group B	Primary	0.23	81
71	Wang et al.	2018	China	RCT	150	Group A	Group B	Primary	0.13	94
72	Lee et al.	2019	South Korea	Observational	230	Group A	Group B	Primary	0.27	76
73	Alam et al.	2018	Bangladesh	RCT	140	Group A	Group B	Primary	0.15	90
74	Devi et al.	2019	India	Observational	270	Group A	Group B	Primary	0.25	78
75	Nguyen et al.	2020	Vietnam	RCT	160	Group A	Group B	Primary	0.14	94
76	Wang et al.	2018	China	Observational	250	Group A	Group B	Primary	0.26	78
77	Kim et al.	2019	South Korea	RCT	130	Group A	Group B	Primary	0.17	92
78	Nguyen et al.	2020	Vietnam	Observational	210	Group A	Group B	Primary	0.23	82
79	Wang et al.	2018	China	RCT	150	Group A	Group B	Primary	0.13	95
80	Lee et al.	2019	South Korea	Observational	230	Group A	Group B	Primary	0.27	77
81	Alam et al.	2018	Bangladesh	RCT	140	Group A	Group B	Primary	0.15	91
82	Devi et al.	2019	India	Observational	270	Group A	Group B	Primary	0.25	79
83	Nguyen et al.	2020	Vietnam	RCT	160	Group A	Group B	Primary	0.14	95
84	Wang et al.	2018	China	Observational	250	Group A	Group B	Primary	0.26	79
85	Kim et al.	2019	South Korea	RCT	130	Group A	Group B	Primary	0.17	93
86	Nguyen et al.	2020	Vietnam	Observational	210	Group A	Group B	Primary	0.23	83
87	Wang et al.	2018	China	RCT	150	Group A	Group B	Primary	0.13	96
88	Lee et al.	2019	South Korea	Observational	230	Group A	Group B	Primary	0.27	78
89	Alam et al.	2018	Bangladesh	RCT	140	Group A	Group B	Primary	0.15	92
90	Devi et al.	2019	India	Observational	270	Group A	Group B	Primary	0.25	80
91	Nguyen et al.	2020	Vietnam	RCT	160	Group A	Group B	Primary	0.14	96
92	Wang et al.	2018	China	Observational	250	Group A	Group B	Primary	0.26	80
93	Kim et al.	2019	South Korea	RCT	130	Group A	Group B	Primary	0.17	94
94	Nguyen et al.	2020	Vietnam	Observational	210	Group A	Group B	Primary	0.23	84
95	Wang et al.	2018	China	RCT	150	Group A	Group B	Primary	0.13	97
96	Lee et al.	2019	South Korea	Observational	230	Group A	Group B	Primary	0.27	79
97	Alam et al.	2018	Bangladesh	RCT	140	Group A	Group B	Primary	0.15	93
98	Devi et al.	2019	India	Observational	270	Group A	Group B	Primary	0.25	81
99	Nguyen et al.	2020	Vietnam	RCT	160	Group A	Group B	Primary	0.14	97
100	Wang et al.	2018	China	Observational	250	Group A	Group B	Primary	0.26	81

Study ID	Author	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Effect Size	Quality Score
1	Smith et al.	2018	USA	RCT	120	Group A	Group B	Primary	0.15	85
2	Johnson et al.	2019	UK	Cohort	250	Group A	Group B	Primary	0.12	78
3	Chen et al.	2020	China	RCT	180	Group A	Group B	Primary	0.18	90
4	Lee et al.	2017	South Korea	Quasi-experimental	300	Group A	Group B	Primary	0.10	72
5	Patel et al.	2019	India	RCT	150	Group A	Group B	Primary	0.14	82
6	Wang et al.	2018	China	Quasi-experimental	200	Group A	Group B	Primary	0.11	75
7	Nguyen et al.	2020	Vietnam	RCT	130	Group A	Group B	Primary	0.16	88
8	Almeida et al.	2019	Brazil	Quasi-experimental	220	Group A	Group B	Primary	0.13	79
9	Kim et al.	2018	South Korea	RCT	110	Group A	Group B	Primary	0.17	87
10	Miller et al.	2017	USA	Quasi-experimental	280	Group A	Group B	Primary	0.09	70
11	Das et al.	2019	India	RCT	140	Group A	Group B	Primary	0.15	83
12	Nguyen et al.	2018	Vietnam	Quasi-experimental	190	Group A	Group B	Primary	0.12	76
13	Chen et al.	2020	China	RCT	160	Group A	Group B	Primary	0.19	91
14	Patel et al.	2019	India	Quasi-experimental	210	Group A	Group B	Primary	0.11	74
15	Wang et al.	2018	China	RCT	170	Group A	Group B	Primary	0.16	86
16	Nguyen et al.	2019	Vietnam	Quasi-experimental	230	Group A	Group B	Primary	0.10	71
17	Kim et al.	2018	South Korea	RCT	125	Group A	Group B	Primary	0.17	87
18	Miller et al.	2017	USA	Quasi-experimental	270	Group A	Group B	Primary	0.09	70
19	Das et al.	2019	India	RCT	145	Group A	Group B	Primary	0.15	83
20	Nguyen et al.	2018	Vietnam	Quasi-experimental	195	Group A	Group B	Primary	0.12	76
21	Chen et al.	2020	China	RCT	165	Group A	Group B	Primary	0.19	91
22	Patel et al.	2019	India	Quasi-experimental	215	Group A	Group B	Primary	0.11	74
23	Wang et al.	2018	China	RCT	175	Group A	Group B	Primary	0.16	86
24	Nguyen et al.	2019	Vietnam	Quasi-experimental	235	Group A	Group B	Primary	0.10	71
25	Kim et al.	2018	South Korea	RCT	130	Group A	Group B	Primary	0.17	87
26	Miller et al.	2017	USA	Quasi-experimental	275	Group A	Group B	Primary	0.09	70
27	Das et al.	2019	India	RCT	150	Group A	Group B	Primary	0.15	83
28	Nguyen et al.	2018	Vietnam	Quasi-experimental	200	Group A	Group B	Primary	0.12	76
29	Chen et al.	2020	China	RCT	170	Group A	Group B	Primary	0.19	91
30	Patel et al.	2019	India	Quasi-experimental	220	Group A	Group B	Primary	0.11	74
31	Wang et al.	2018	China	RCT	180	Group A	Group B	Primary	0.16	86
32	Nguyen et al.	2019	Vietnam	Quasi-experimental	240	Group A	Group B	Primary	0.10	71
33	Kim et al.	2018	South Korea	RCT	135	Group A	Group B	Primary	0.17	87
34	Miller et al.	2017	USA	Quasi-experimental	280	Group A	Group B	Primary	0.09	70
35	Das et al.	2019	India	RCT	155	Group A	Group B	Primary	0.15	83
36	Nguyen et al.	2018	Vietnam	Quasi-experimental	205	Group A	Group B	Primary	0.12	76
37	Chen et al.	2020	China	RCT	175	Group A	Group B	Primary	0.19	91
38	Patel et al.	2019	India	Quasi-experimental	225	Group A	Group B	Primary	0.11	74
39	Wang et al.	2018	China	RCT	185	Group A	Group B	Primary	0.16	86
40	Nguyen et al.	2019	Vietnam	Quasi-experimental	245	Group A	Group B	Primary	0.10	71
41	Kim et al.	2018	South Korea	RCT	140	Group A	Group B	Primary	0.17	87
42	Miller et al.	2017	USA	Quasi-experimental	285	Group A	Group B	Primary	0.09	70
43	Das et al.	2019	India	RCT	160	Group A	Group B	Primary	0.15	83
44	Nguyen et al.	2018	Vietnam	Quasi-experimental	210	Group A	Group B	Primary	0.12	76
45	Chen et al.	2020	China	RCT	180	Group A	Group B	Primary	0.19	91
46	Patel et al.	2019	India	Quasi-experimental	230	Group A	Group B	Primary	0.11	74
47	Wang et al.	2018	China	RCT	190	Group A	Group B	Primary	0.16	86
48	Nguyen et al.	2019	Vietnam	Quasi-experimental	250	Group A	Group B	Primary	0.10	71
49	Kim et al.	2018	South Korea	RCT	145	Group A	Group B	Primary	0.17	87
50	Miller et al.	2017	USA	Quasi-experimental	290	Group A	Group B	Primary	0.09	70
51	Das et al.	2019	India	RCT	165	Group A	Group B	Primary	0.15	83
52	Nguyen et al.	2018	Vietnam	Quasi-experimental	215	Group A	Group B	Primary	0.12	76
53	Chen et al.	2020	China	RCT	185	Group A	Group B	Primary	0.19	91
54	Patel et al.	2019	India	Quasi-experimental	235	Group A	Group B	Primary	0.11	74
55	Wang et al.	2018	China	RCT	195	Group A	Group B	Primary	0.16	86
56	Nguyen et al.	2019	Vietnam	Quasi-experimental	255	Group A	Group B	Primary	0.10	71
57	Kim et al.	2018	South Korea	RCT	150	Group A	Group B	Primary	0.17	87
58	Miller et al.	2017	USA	Quasi-experimental	295	Group A	Group B	Primary	0.09	70
59	Das et al.	2019	India	RCT	170	Group A	Group B	Primary	0.15	83
60	Nguyen et al.	2018	Vietnam	Quasi-experimental	220	Group A	Group B	Primary	0.12	76
61	Chen et al.	2020	China	RCT	190	Group A	Group B	Primary	0.19	91
62	Patel et al.	2019	India	Quasi-experimental	240	Group A	Group B	Primary	0.11	74
63	Wang et al.	2018	China	RCT	200	Group A	Group B	Primary	0.16	86
64	Nguyen et al.	2019	Vietnam	Quasi-experimental	260	Group A	Group B	Primary	0.10	71
65	Kim et al.	2018	South Korea	RCT	155	Group A	Group B	Primary	0.17	87
66	Miller et al.	2017	USA	Quasi-experimental	300	Group A	Group B	Primary	0.09	70
67	Das et al.	2019	India	RCT	175	Group A	Group B	Primary	0.15	83
68	Nguyen et al.	2018	Vietnam	Quasi-experimental	225	Group A	Group B	Primary	0.12	76
69	Chen et al.	2020	China	RCT	195	Group A	Group B	Primary	0.19	91
70	Patel et al.	2019	India	Quasi-experimental	245	Group A	Group B	Primary	0.11	74
71	Wang et al.	2018	China	RCT	205	Group A	Group B	Primary	0.16	86
72	Nguyen et al.	2019	Vietnam	Quasi-experimental	265	Group A	Group B	Primary	0.10	71
73	Kim et al.	2018	South Korea	RCT	160	Group A	Group B	Primary	0.17	87
74	Miller et al.	2017	USA	Quasi-experimental	305	Group A	Group B	Primary	0.09	70
75	Das et al.	2019	India	RCT	180	Group A	Group B	Primary	0.15	83
76	Nguyen et al.	2018	Vietnam	Quasi-experimental	230	Group A	Group B	Primary	0.12	76
77	Chen et al.	2020	China	RCT	200	Group A	Group B	Primary	0.19	91
78	Patel et al.	2019	India	Quasi-experimental	250	Group A	Group B	Primary	0.11	74
79	Wang et al.	2018	China	RCT	210	Group A	Group B	Primary	0.16	86
80	Nguyen et al.	2019	Vietnam	Quasi-experimental	270	Group A	Group B	Primary	0.10	71
81	Kim et al.	2018	South Korea	RCT	165	Group A	Group B	Primary	0.17	87
82	Miller et al.	2017	USA	Quasi-experimental	310	Group A	Group B	Primary	0.09	70
83	Das et al.	2019	India	RCT	185	Group A	Group B	Primary	0.15	83
84	Nguyen et al.	2018	Vietnam	Quasi-experimental	235	Group A	Group B	Primary	0.12	76
85	Chen et al.	2020	China	RCT	205	Group A	Group B	Primary	0.19	91
86	Patel et al.	2019	India	Quasi-experimental	255	Group A	Group B	Primary	0.11	74
87	Wang et al.	2018	China	RCT	215	Group A	Group B	Primary	0.16	86
88	Nguyen et al.	2019	Vietnam	Quasi-experimental	275	Group A	Group B	Primary	0.10	71
89	Kim et al.	2018	South Korea	RCT	170	Group A	Group B	Primary	0.17	87
90	Miller et al.	2017	USA	Quasi-experimental	315	Group A	Group B	Primary	0.09	70
91	Das et al.	2019	India	RCT	190	Group A	Group B	Primary	0.15	83
92	Nguyen et al.	2018	Vietnam	Quasi-experimental	240	Group A	Group B	Primary	0.12	76
93	Chen et al.	2020	China	RCT	210	Group A	Group B	Primary	0.19	91
94	Patel et al.	2019	India	Quasi-experimental	260	Group A	Group B	Primary	0.11	74
95	Wang et al.	2018	China	RCT	220	Group A	Group B	Primary	0.16	86
96	Nguyen et al.	2019	Vietnam	Quasi-experimental	280	Group A	Group B	Primary	0.10	71
97	Kim et al.	2018	South Korea	RCT	175	Group A	Group B	Primary	0.17	87
98	Miller et al.	2017	USA	Quasi-experimental	320	Group A	Group B	Primary	0.09	70
99	Das et al.	2019	India	RCT	195	Group A	Group B	Primary	0.15	83
100	Nguyen et al.	2018	Vietnam	Quasi-experimental	245	Group A	Group B	Primary	0.12	76

Study	Author	Year	Country	Sample Size	Prevalence	95% CI	OR	95% CI	OR	95% CI
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Study	Author	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Effect Size	Quality Score	Notes
1	Smith et al.	2018	USA	RCT	1000	Group A	Group B	Primary	0.15	12	High quality
2	Johnson et al.	2019	UK	Cohort	5000	Group A	Group B	Primary	0.10	8	Medium quality
3	Chen et al.	2020	China	RCT	2000	Group A	Group B	Primary	0.20	10	High quality
4	Lee et al.	2017	South Korea	Case-control	3000	Group A	Group B	Primary	0.08	6	Low quality
5	Patel et al.	2019	India	RCT	1500	Group A	Group B	Primary	0.12	9	High quality
6	Wang et al.	2018	Canada	Observational	4000	Group A	Group B	Primary	0.05	5	Low quality
7	Nguyen et al.	2020	Vietnam	RCT	1200	Group A	Group B	Primary	0.18	11	High quality
8	Okamoto et al.	2019	Japan	Cohort	6000	Group A	Group B	Primary	0.07	7	Medium quality
9	Alvarez et al.	2018	Spain	RCT	1800	Group A	Group B	Primary	0.14	10	High quality
10	Kim et al.	2017	South Korea	Case-control	2500	Group A	Group B	Primary	0.06	6	Low quality
11	Miller et al.	2019	USA	RCT	1100	Group A	Group B	Primary	0.16	11	High quality
12	Green et al.	2018	UK	Observational	3500	Group A	Group B	Primary	0.04	5	Low quality
13	Li et al.	2020	China	RCT	2200	Group A	Group B	Primary	0.19	12	High quality
14	Nguyen et al.	2019	Vietnam	Cohort	4500	Group A	Group B	Primary	0.09	8	Medium quality
15	Patel et al.	2018	India	RCT	1600	Group A	Group B	Primary	0.13	10	High quality
16	Wang et al.	2017	Canada	Observational	3800	Group A	Group B	Primary	0.03	4	Low quality
17	Nguyen et al.	2020	Vietnam	RCT	1300	Group A	Group B	Primary	0.17	11	High quality
18	Okamoto et al.	2019	Japan	Cohort	5500	Group A	Group B	Primary	0.08	7	Medium quality
19	Alvarez et al.	2018	Spain	RCT	1700	Group A	Group B	Primary	0.15	10	High quality
20	Kim et al.	2017	South Korea	Case-control	2800	Group A	Group B	Primary	0.07	6	Low quality
21	Miller et al.	2019	USA	RCT	1150	Group A	Group B	Primary	0.16	11	High quality
22	Green et al.	2018	UK	Observational	3600	Group A	Group B	Primary	0.04	5	Low quality
23	Li et al.	2020	China	RCT	2100	Group A	Group B	Primary	0.18	11	High quality
24	Nguyen et al.	2019	Vietnam	Cohort	4800	Group A	Group B	Primary	0.09	8	Medium quality
25	Patel et al.	2018	India	RCT	1550	Group A	Group B	Primary	0.13	10	High quality
26	Wang et al.	2017	Canada	Observational	3900	Group A	Group B	Primary	0.03	4	Low quality
27	Nguyen et al.	2020	Vietnam	RCT	1250	Group A	Group B	Primary	0.17	11	High quality
28	Okamoto et al.	2019	Japan	Cohort	5200	Group A	Group B	Primary	0.08	7	Medium quality
29	Alvarez et al.	2018	Spain	RCT	1650	Group A	Group B	Primary	0.15	10	High quality
30	Kim et al.	2017	South Korea	Case-control	2700	Group A	Group B	Primary	0.07	6	Low quality
31	Miller et al.	2019	USA	RCT	1120	Group A	Group B	Primary	0.16	11	High quality
32	Green et al.	2018	UK	Observational	3400	Group A	Group B	Primary	0.04	5	Low quality
33	Li et al.	2020	China	RCT	2000	Group A	Group B	Primary	0.18	11	High quality
34	Nguyen et al.	2019	Vietnam	Cohort	4600	Group A	Group B	Primary	0.09	8	Medium quality
35	Patel et al.	2018	India	RCT	1500	Group A	Group B	Primary	0.13	10	High quality
36	Wang et al.	2017	Canada	Observational	3700	Group A	Group B	Primary	0.03	4	Low quality
37	Nguyen et al.	2020	Vietnam	RCT	1200	Group A	Group B	Primary	0.17	11	High quality
38	Okamoto et al.	2019	Japan	Cohort	5000	Group A	Group B	Primary	0.08	7	Medium quality
39	Alvarez et al.	2018	Spain	RCT	1600	Group A	Group B	Primary	0.15	10	High quality
40	Kim et al.	2017	South Korea	Case-control	2600	Group A	Group B	Primary	0.07	6	Low quality
41	Miller et al.	2019	USA	RCT	1050	Group A	Group B	Primary	0.16	11	High quality
42	Green et al.	2018	UK	Observational	3300	Group A	Group B	Primary	0.04	5	Low quality
43	Li et al.	2020	China	RCT	1900	Group A	Group B	Primary	0.18	11	High quality
44	Nguyen et al.	2019	Vietnam	Cohort	4400	Group A	Group B	Primary	0.09	8	Medium quality
45	Patel et al.	2018	India	RCT	1450	Group A	Group B	Primary	0.13	10	High quality
46	Wang et al.	2017	Canada	Observational	3600	Group A	Group B	Primary	0.03	4	Low quality
47	Nguyen et al.	2020	Vietnam	RCT	1150	Group A	Group B	Primary	0.17	11	High quality
48	Okamoto et al.	2019	Japan	Cohort	4800	Group A	Group B	Primary	0.08	7	Medium quality
49	Alvarez et al.	2018	Spain	RCT	1550	Group A	Group B	Primary	0.15	10	High quality
50	Kim et al.	2017	South Korea	Case-control	2500	Group A	Group B	Primary	0.07	6	Low quality
51	Miller et al.	2019	USA	RCT	1000	Group A	Group B	Primary	0.16	11	High quality
52	Green et al.	2018	UK	Observational	3200	Group A	Group B	Primary	0.04	5	Low quality
53	Li et al.	2020	China	RCT	1800	Group A	Group B	Primary	0.18	11	High quality
54	Nguyen et al.	2019	Vietnam	Cohort	4200	Group A	Group B	Primary	0.09	8	Medium quality
55	Patel et al.	2018	India	RCT	1400	Group A	Group B	Primary	0.13	10	High quality
56	Wang et al.	2017	Canada	Observational	3500	Group A	Group B	Primary	0.03	4	Low quality
57	Nguyen et al.	2020	Vietnam	RCT	1100	Group A	Group B	Primary	0.17	11	High quality
58	Okamoto et al.	2019	Japan	Cohort	4600	Group A	Group B	Primary	0.08	7	Medium quality
59	Alvarez et al.	2018	Spain	RCT	1500	Group A	Group B	Primary	0.15	10	High quality
60	Kim et al.	2017	South Korea	Case-control	2400	Group A	Group B	Primary	0.07	6	Low quality
61	Miller et al.	2019	USA	RCT	950	Group A	Group B	Primary	0.16	11	High quality
62	Green et al.	2018	UK	Observational	3100	Group A	Group B	Primary	0.04	5	Low quality
63	Li et al.	2020	China	RCT	1700	Group A	Group B	Primary	0.18	11	High quality
64	Nguyen et al.	2019	Vietnam	Cohort	4000	Group A	Group B	Primary	0.09	8	Medium quality
65	Patel et al.	2018	India	RCT	1350	Group A	Group B	Primary	0.13	10	High quality
66	Wang et al.	2017	Canada	Observational	3400	Group A	Group B	Primary	0.03	4	Low quality
67	Nguyen et al.	2020	Vietnam	RCT	1050	Group A	Group B	Primary	0.17	11	High quality
68	Okamoto et al.	2019	Japan	Cohort	4400	Group A	Group B	Primary	0.08	7	Medium quality
69	Alvarez et al.	2018	Spain	RCT	1450	Group A	Group B	Primary	0.15	10	High quality
70	Kim et al.	2017	South Korea	Case-control	2300	Group A	Group B	Primary	0.07	6	Low quality
71	Miller et al.	2019	USA	RCT	900	Group A	Group B	Primary	0.16	11	High quality
72	Green et al.	2018	UK	Observational	3000	Group A	Group B	Primary	0.04	5	Low quality
73	Li et al.	2020	China	RCT	1600	Group A	Group B	Primary	0.18	11	High quality
74	Nguyen et al.	2019	Vietnam	Cohort	3800	Group A	Group B	Primary	0.09	8	Medium quality
75	Patel et al.	2018	India	RCT	1300	Group A	Group B	Primary	0.13	10	High quality
76	Wang et al.	2017	Canada	Observational	3300	Group A	Group B	Primary	0.03	4	Low quality
77	Nguyen et al.	2020	Vietnam	RCT	1000	Group A	Group B	Primary	0.17	11	High quality
78	Okamoto et al.	2019	Japan	Cohort	4200	Group A	Group B	Primary	0.08	7	Medium quality
79	Alvarez et al.	2018	Spain	RCT	1400	Group A	Group B	Primary	0.15	10	High quality
80	Kim et al.	2017	South Korea	Case-control	2200	Group A	Group B	Primary	0.07	6	Low quality
81	Miller et al.	2019	USA	RCT	850	Group A	Group B	Primary	0.16	11	High quality
82	Green et al.	2018	UK	Observational	2900	Group A	Group B	Primary	0.04	5	Low quality
83	Li et al.	2020	China	RCT	1500	Group A	Group B	Primary	0.18	11	High quality
84	Nguyen et al.	2019	Vietnam	Cohort	3600	Group A	Group B	Primary	0.09	8	Medium quality
85	Patel et al.	2018	India	RCT	1250	Group A	Group B	Primary	0.13	10	High quality
86	Wang et al.	2017	Canada	Observational	3200	Group A	Group B	Primary	0.03	4	Low quality
87	Nguyen et al.	2020	Vietnam	RCT	950	Group A	Group B	Primary	0.17	11	High quality
88	Okamoto et al.	2019	Japan	Cohort	4000	Group A	Group B	Primary	0.08	7	Medium quality
89	Alvarez et al.	2018	Spain	RCT	1350	Group A	Group B	Primary	0.15	10	High quality
90	Kim et al.	2017	South Korea	Case-control	2100	Group A	Group B	Primary	0.07	6	Low quality
91	Miller et al.	2019	USA	RCT	800	Group A	Group B	Primary	0.16	11	High quality
92	Green et al.	2018	UK	Observational	2800	Group A	Group B	Primary	0.04	5	Low quality
93	Li et al.	2020	China	RCT	1400	Group A	Group B	Primary	0.18	11	High quality
94	Nguyen et al.	2019	Vietnam	Cohort	3400	Group A	Group B	Primary	0.09	8	Medium quality
95	Patel et al.	2018	India	RCT	1200	Group A	Group B	Primary	0.13	10	High quality
96	Wang et al.	2017	Canada	Observational	3100	Group A	Group B	Primary	0.03	4	Low quality
97	Nguyen et al.	2020	Vietnam	RCT	900	Group A	Group B	Primary	0.17	11	High quality
98	Okamoto et al.	2019	Japan	Cohort	3800	Group A	Group B	Primary	0.08	7	Medium quality
99	Alvarez et al.	2018	Spain	RCT	1300	Group A	Group B	Primary	0.15	10	High quality
100	Kim et al.	2017	South Korea	Case-control	2000	Group A	Group B	Primary	0.07	6	Low quality

Study	Author	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Effect Size	Quality Score	Notes
1	Smith et al.	2018	USA	RCT	1000	Group A	Group B	Primary	0.15	85	
2	Johnson et al.	2019	UK	Observational	5000	Group A	Group B	Primary	0.10	70	
3	Chen et al.	2020	China	RCT	2000	Group A	Group B	Primary	0.20	90	
4	Lee et al.	2017	South Korea	Cohort	3000	Group A	Group B	Primary	0.12	75	
5	Patel et al.	2019	India	RCT	1500	Group A	Group B	Primary	0.18	80	
6	Wang et al.	2018	Canada	Observational	4000	Group A	Group B	Primary	0.08	65	
7	Nguyen et al.	2020	Vietnam	RCT	1200	Group A	Group B	Primary	0.22	92	
8	Okamoto et al.	2017	Japan	Cohort	2500	Group A	Group B	Primary	0.11	72	
9	Alvarez et al.	2019	Spain	RCT	1800	Group A	Group B	Primary	0.16	82	
10	Kim et al.	2018	South Korea	Observational	6000	Group A	Group B	Primary	0.09	68	
11	Miller et al.	2020	USA	RCT	1100	Group A	Group B	Primary	0.19	88	
12	Das et al.	2017	India	Cohort	3500	Group A	Group B	Primary	0.13	78	
13	Nguyen et al.	2019	Vietnam	RCT	1400	Group A	Group B	Primary	0.17	83	
14	Wang et al.	2018	China	Observational	5500	Group A	Group B	Primary	0.07	62	
15	Lee et al.	2020	South Korea	RCT	1600	Group A	Group B	Primary	0.21	91	
16	Patel et al.	2017	India	Cohort	4500	Group A	Group B	Primary	0.14	80	
17	Nguyen et al.	2019	Vietnam	RCT	1300	Group A	Group B	Primary	0.18	84	
18	Wang et al.	2018	China	Observational	6500	Group A	Group B	Primary	0.06	60	
19	Lee et al.	2020	South Korea	RCT	1700	Group A	Group B	Primary	0.20	90	
20	Patel et al.	2017	India	Cohort	4800	Group A	Group B	Primary	0.15	81	
21	Nguyen et al.	2019	Vietnam	RCT	1500	Group A	Group B	Primary	0.19	86	
22	Wang et al.	2018	China	Observational	7000	Group A	Group B	Primary	0.05	58	
23	Lee et al.	2020	South Korea	RCT	1800	Group A	Group B	Primary	0.21	92	
24	Patel et al.	2017	India	Cohort	5200	Group A	Group B	Primary	0.16	83	
25	Nguyen et al.	2019	Vietnam	RCT	1600	Group A	Group B	Primary	0.20	89	
26	Wang et al.	2018	China	Observational	7500	Group A	Group B	Primary	0.04	55	
27	Lee et al.	2020	South Korea	RCT	1900	Group A	Group B	Primary	0.22	93	
28	Patel et al.	2017	India	Cohort	5500	Group A	Group B	Primary	0.17	84	
29	Nguyen et al.	2019	Vietnam	RCT	1700	Group A	Group B	Primary	0.21	90	
30	Wang et al.	2018	China	Observational	8000	Group A	Group B	Primary	0.03	52	
31	Lee et al.	2020	South Korea	RCT	2000	Group A	Group B	Primary	0.23	94	
32	Patel et al.	2017	India	Cohort	6000	Group A	Group B	Primary	0.18	85	
33	Nguyen et al.	2019	Vietnam	RCT	1800	Group A	Group B	Primary	0.22	91	
34	Wang et al.	2018	China	Observational	8500	Group A	Group B	Primary	0.02	50	
35	Lee et al.	2020	South Korea	RCT	2100	Group A	Group B	Primary	0.24	95	
36	Patel et al.	2017	India	Cohort	6500	Group A	Group B	Primary	0.19	86	
37	Nguyen et al.	2019	Vietnam	RCT	1900	Group A	Group B	Primary	0.23	92	
38	Wang et al.	2018	China	Observational	9000	Group A	Group B	Primary	0.01	48	
39	Lee et al.	2020	South Korea	RCT	2200	Group A	Group B	Primary	0.25	96	
40	Patel et al.	2017	India	Cohort	7000	Group A	Group B	Primary	0.20	87	
41	Nguyen et al.	2019	Vietnam	RCT	2000	Group A	Group B	Primary	0.24	93	
42	Wang et al.	2018	China	Observational	9500	Group A	Group B	Primary	0.00	45	
43	Lee et al.	2020	South Korea	RCT	2300	Group A	Group B	Primary	0.26	97	
44	Patel et al.	2017	India	Cohort	7500	Group A	Group B	Primary	0.21	88	
45	Nguyen et al.	2019	Vietnam	RCT	2100	Group A	Group B	Primary	0.25	94	
46	Wang et al.	2018	China	Observational	10000	Group A	Group B	Primary	-0.01	42	
47	Lee et al.	2020	South Korea	RCT	2400	Group A	Group B	Primary	0.27	98	
48	Patel et al.	2017	India	Cohort	8000	Group A	Group B	Primary	0.22	89	
49	Nguyen et al.	2019	Vietnam	RCT	2200	Group A	Group B	Primary	0.26	95	
50	Wang et al.	2018	China	Observational	10500	Group A	Group B	Primary	-0.02	40	
51	Lee et al.	2020	South Korea	RCT	2500	Group A	Group B	Primary	0.28	99	
52	Patel et al.	2017	India	Cohort	8500	Group A	Group B	Primary	0.23	90	
53	Nguyen et al.	2019	Vietnam	RCT	2300	Group A	Group B	Primary	0.27	96	
54	Wang et al.	2018	China	Observational	11000	Group A	Group B	Primary	-0.03	38	
55	Lee et al.	2020	South Korea	RCT	2600	Group A	Group B	Primary	0.29	100	
56	Patel et al.	2017	India	Cohort	9000	Group A	Group B	Primary	0.24	91	
57	Nguyen et al.	2019	Vietnam	RCT	2400	Group A	Group B	Primary	0.28	97	
58	Wang et al.	2018	China	Observational	11500	Group A	Group B	Primary	-0.04	35	
59	Lee et al.	2020	South Korea	RCT	2700	Group A	Group B	Primary	0.30	100	
60	Patel et al.	2017	India	Cohort	9500	Group A	Group B	Primary	0.25	92	
61	Nguyen et al.	2019	Vietnam	RCT	2500	Group A	Group B	Primary	0.29	98	
62	Wang et al.	2018	China	Observational	12000	Group A	Group B	Primary	-0.05	32	
63	Lee et al.	2020	South Korea	RCT	2800	Group A	Group B	Primary	0.31	100	
64	Patel et al.	2017	India	Cohort	10000	Group A	Group B	Primary	0.26	93	
65	Nguyen et al.	2019	Vietnam	RCT	2600	Group A	Group B	Primary	0.30	99	
66	Wang et al.	2018	China	Observational	12500	Group A	Group B	Primary	-0.06	30	
67	Lee et al.	2020	South Korea	RCT	2900	Group A	Group B	Primary	0.32	100	
68	Patel et al.	2017	India	Cohort	10500	Group A	Group B	Primary	0.27	94	
69	Nguyen et al.	2019	Vietnam	RCT	2700	Group A	Group B	Primary	0.31	100	
70	Wang et al.	2018	China	Observational	13000	Group A	Group B	Primary	-0.07	28	
71	Lee et al.	2020	South Korea	RCT	3000	Group A	Group B	Primary	0.33	100	
72	Patel et al.	2017	India	Cohort	11000	Group A	Group B	Primary	0.28	95	
73	Nguyen et al.	2019	Vietnam	RCT	2800	Group A	Group B	Primary	0.32	100	
74	Wang et al.	2018	China	Observational	13500	Group A	Group B	Primary	-0.08	25	
75	Lee et al.	2020	South Korea	RCT	3100	Group A	Group B	Primary	0.34	100	
76	Patel et al.	2017	India	Cohort	11500	Group A	Group B	Primary	0.29	96	
77	Nguyen et al.	2019	Vietnam	RCT	2900	Group A	Group B	Primary	0.33	100	
78	Wang et al.	2018	China	Observational	14000	Group A	Group B	Primary	-0.09	22	
79	Lee et al.	2020	South Korea	RCT	3200	Group A	Group B	Primary	0.35	100	
80	Patel et al.	2017	India	Cohort	12000	Group A	Group B	Primary	0.30	97	
81	Nguyen et al.	2019	Vietnam	RCT	3000	Group A	Group B	Primary	0.34	100	
82	Wang et al.	2018	China	Observational	14500	Group A	Group B	Primary	-0.10	20	
83	Lee et al.	2020	South Korea	RCT	3300	Group A	Group B	Primary	0.36	100	
84	Patel et al.	2017	India	Cohort	12500	Group A	Group B	Primary	0.31	98	
85	Nguyen et al.	2019	Vietnam	RCT	3100	Group A	Group B	Primary	0.35	100	
86	Wang et al.	2018	China	Observational	15000	Group A	Group B	Primary	-0.11	18	
87	Lee et al.	2020	South Korea	RCT	3400	Group A	Group B	Primary	0.37	100	
88	Patel et al.	2017	India	Cohort	13000	Group A	Group B	Primary	0.32	99	
89	Nguyen et al.	2019	Vietnam	RCT	3200	Group A	Group B	Primary	0.36	100	
90	Wang et al.	2018	China	Observational	15500	Group A	Group B	Primary	-0.12	16	
91	Lee et al.	2020	South Korea	RCT	3500	Group A	Group B	Primary	0.38	100	
92	Patel et al.	2017	India	Cohort	13500	Group A	Group B	Primary	0.33	100	
93	Nguyen et al.	2019	Vietnam	RCT	3300	Group A	Group B	Primary	0.37	100	
94	Wang et al.	2018	China	Observational	16000	Group A	Group B	Primary	-0.13	14	
95	Lee et al.	2020	South Korea	RCT	3600	Group A	Group B	Primary	0.39	100	
96	Patel et al.	2017	India	Cohort	14000	Group A	Group B	Primary	0.34	100	
97	Nguyen et al.	2019	Vietnam	RCT	3400	Group A	Group B	Primary	0.38	100	
98	Wang et al.	2018	China	Observational	16500	Group A	Group B	Primary	-0.14	12	
99	Lee et al.	2020	South Korea	RCT	3700	Group A	Group B	Primary	0.40	100	
100	Patel et al.	2017	India	Cohort	14500	Group A	Group B	Primary	0.35	100	
101	Nguyen et al.	2019	Vietnam	RCT	3500	Group A	Group B	Primary	0.39	100	
102	Wang et al.	2018	China	Observational	17000	Group A	Group B	Primary	-0.15	10	
103	Lee et al.	2020	South Korea	RCT	3800	Group A	Group B	Primary	0.41	100	
104	Patel et al.	2017	India	Cohort	15000	Group A	Group B	Primary	0.36	100	
105	Nguyen et al.	2019	Vietnam	RCT	3600	Group A	Group B	Primary	0.40	100	
106	Wang et al.	2018	China	Observational	17500	Group A	Group B	Primary	-0.16	8	
107	Lee et al.	2020	South Korea	RCT	3900	Group A	Group B	Primary	0.42	100	
108	Patel et al.	2017	India	Cohort	15500	Group A	Group B	Primary	0.37	100	
109	Nguyen et al.	2019	Vietnam	RCT	3700	Group A	Group B	Primary	0.41	100	
110	Wang et al.	2018	China	Observational	18000	Group A	Group B	Primary	-0.17	6	
111	Lee et al.	2020	South Korea	RCT	4000	Group A	Group B	Primary	0.43	100	
112	Patel et al.	2017	India	Cohort	16000	Group A	Group B	Primary	0.38	100	
113	Nguyen et al.	2019	Vietnam	RCT	3800	Group A	Group B	Primary	0.42	100	
114	Wang et al.	2018	China	Observational	18500	Group A	Group B	Primary	-0.18	4	
115	Lee et al.	2020	South Korea	RCT	4100	Group A	Group B	Primary	0.44	100	
116	Patel et al.	2017	India	Cohort	16500	Group A	Group B	Primary	0.39	100	
117	Nguyen et al.	2019	Vietnam	RCT	3900	Group A	Group B	Primary	0.43	100	
118	Wang et al.	2018	China	Observational	19000	Group A	Group B	Primary	-0.19	2	
119	Lee et al.	2020	South Korea	RCT	4200	Group A	Group B	Primary	0.45	100	
120	Patel et al.	2017	India	Cohort	17000	Group A	Group B	Primary	0.40	100	
121	Nguyen et al.	2019	Vietnam	RCT	4000	Group A	Group B	Primary	0.44	100	
122	Wang et al.	2018	China	Observational	19500	Group A	Group B	Primary	-0.20	0	
123	Lee et al.	2020	South Korea	RCT	4300	Group A	Group B	Primary	0.46	100	
124	Patel et al.	2017	India	Cohort	17500	Group A	Group B	Primary	0.41	100	
125	Nguyen et al.	2019	Vietnam	RCT	4100	Group A	Group B	Primary	0.45	100	
126	Wang et al.	2018	China	Observational	20000	Group A	Group B	Primary	-0.21	0	
127	Lee et al.	2020	South Korea	RCT	4400	Group A	Group B	Primary	0.47	100	
128	Patel et al.	2017	India	Cohort	18000	Group A	Group B	Primary	0.42	100	
129	Nguyen et al.	2019	Vietnam	RCT	4200	Group A	Group B	Primary	0.46	100	
130	Wang et al.	2018	China	Observational	20500	Group A	Group B	Primary	-0.22	0	
131	Lee et al.	2020	South Korea	RCT	4500	Group A	Group B	Primary	0.48	100	
132	Patel et al.	2017	India	Cohort	18500	Group A	Group B	Primary	0.43	100	
133	Nguyen et al.	2019	Vietnam	RCT	4300	Group					

Study	Author	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Effect Size	Quality Score	Notes
1	Smith et al.	2018	USA	RCT	1000	Group A	Group B	Primary	0.15	12	High quality
2	Johnson et al.	2019	UK	Cohort	5000	Group A	Group B	Secondary	0.10	8	Medium quality
3	Chen et al.	2020	China	RCT	2000	Group A	Group B	Primary	0.20	15	High quality
4	Lee et al.	2017	South Korea	Case-control	3000	Group A	Group B	Secondary	0.08	6	Low quality
5	Patel et al.	2019	India	RCT	1500	Group A	Group B	Primary	0.18	14	High quality
6	Wang et al.	2018	Canada	Observational	4000	Group A	Group B	Secondary	0.12	9	Medium quality
7	Nguyen et al.	2020	Vietnam	RCT	1200	Group A	Group B	Primary	0.22	16	High quality
8	Miller et al.	2017	Australia	Cohort	6000	Group A	Group B	Secondary	0.09	7	Low quality
9	Kim et al.	2019	South Korea	RCT	1800	Group A	Group B	Primary	0.19	15	High quality
10	Anderson et al.	2018	USA	Case-control	2500	Group A	Group B	Secondary	0.07	5	Low quality
11	Thompson et al.	2020	UK	RCT	1100	Group A	Group B	Primary	0.21	16	High quality
12	White et al.	2017	USA	Observational	3500	Group A	Group B	Secondary	0.11	8	Medium quality
13	Green et al.	2019	Canada	RCT	1400	Group A	Group B	Primary	0.17	14	High quality
14	Black et al.	2018	UK	Cohort	4500	Group A	Group B	Secondary	0.13	9	Medium quality
15	Grey et al.	2020	USA	RCT	1300	Group A	Group B	Primary	0.23	17	High quality
16	Brown et al.	2017	UK	Case-control	2800	Group A	Group B	Secondary	0.06	4	Low quality
17	Wilson et al.	2019	USA	RCT	1600	Group A	Group B	Primary	0.16	13	High quality
18	Moore et al.	2018	UK	Observational	3800	Group A	Group B	Secondary	0.14	10	Medium quality
19	Young et al.	2020	USA	RCT	1700	Group A	Group B	Primary	0.24	18	High quality
20	King et al.	2017	UK	Cohort	4200	Group A	Group B	Secondary	0.11	8	Medium quality
21	Wright et al.	2019	USA	RCT	1500	Group A	Group B	Primary	0.19	15	High quality
22	Scott et al.	2018	UK	Case-control	2600	Group A	Group B	Secondary	0.08	6	Low quality
23	Walker et al.	2020	USA	RCT	1400	Group A	Group B	Primary	0.25	19	High quality
24	Harris et al.	2017	UK	Observational	3600	Group A	Group B	Secondary	0.12	9	Medium quality
25	Clark et al.	2019	USA	RCT	1600	Group A	Group B	Primary	0.20	16	High quality
26	Ross et al.	2018	UK	Cohort	4800	Group A	Group B	Secondary	0.13	10	Medium quality
27	Woods et al.	2020	USA	RCT	1800	Group A	Group B	Primary	0.26	20	High quality
28	Baker et al.	2017	UK	Case-control	2900	Group A	Group B	Secondary	0.09	7	Low quality
29	Greenwood et al.	2019	USA	RCT	1700	Group A	Group B	Primary	0.21	17	High quality
30	Porter et al.	2018	UK	Observational	3900	Group A	Group B	Secondary	0.14	11	Medium quality
31	Long et al.	2020	USA	RCT	1900	Group A	Group B	Primary	0.27	21	High quality
32	Phillips et al.	2017	UK	Cohort	4100	Group A	Group B	Secondary	0.11	8	Medium quality
33	Carter et al.	2019	USA	RCT	1500	Group A	Group B	Primary	0.22	18	High quality
34	Evans et al.	2018	UK	Case-control	2700	Group A	Group B	Secondary	0.07	5	Low quality
35	Turner et al.	2020	USA	RCT	1600	Group A	Group B	Primary	0.28	22	High quality
36	Roberts et al.	2017	UK	Observational	3700	Group A	Group B	Secondary	0.12	9	Medium quality
37	Walters et al.	2019	USA	RCT	1700	Group A	Group B	Primary	0.23	19	High quality
38	Young et al.	2018	UK	Cohort	4300	Group A	Group B	Secondary	0.13	10	Medium quality
39	Green et al.	2020	USA	RCT	1800	Group A	Group B	Primary	0.29	23	High quality
40	King et al.	2017	UK	Case-control	3000	Group A	Group B	Secondary	0.10	8	Medium quality
41	Wright et al.	2019	USA	RCT	1600	Group A	Group B	Primary	0.24	20	High quality
42	Scott et al.	2018	UK	Observational	4000	Group A	Group B	Secondary	0.14	11	Medium quality
43	Walker et al.	2020	USA	RCT	1900	Group A	Group B	Primary	0.30	24	High quality
44	Harris et al.	2017	UK	Cohort	4400	Group A	Group B	Secondary	0.15	12	Medium quality
45	Clark et al.	2019	USA	RCT	1700	Group A	Group B	Primary	0.25	21	High quality
46	Ross et al.	2018	UK	Case-control	3100	Group A	Group B	Secondary	0.11	9	Medium quality
47	Woods et al.	2020	USA	RCT	1800	Group A	Group B	Primary	0.31	25	High quality
48	Baker et al.	2017	UK	Observational	4100	Group A	Group B	Secondary	0.15	13	Medium quality
49	Greenwood et al.	2019	USA	RCT	1900	Group A	Group B	Primary	0.26	22	High quality
50	Porter et al.	2018	UK	Cohort	4500	Group A	Group B	Secondary	0.16	14	Medium quality
51	Long et al.	2020	USA	RCT	2000	Group A	Group B	Primary	0.32	26	High quality
52	Phillips et al.	2017	UK	Case-control	3200	Group A	Group B	Secondary	0.12	10	Medium quality
53	Carter et al.	2019	USA	RCT	1800	Group A	Group B	Primary	0.27	23	High quality
54	Evans et al.	2018	UK	Observational	4200	Group A	Group B	Secondary	0.16	15	Medium quality
55	Turner et al.	2020	USA	RCT	2100	Group A	Group B	Primary	0.33	27	High quality
56	Roberts et al.	2017	UK	Cohort	4600	Group A	Group B	Secondary	0.17	16	Medium quality
57	Walters et al.	2019	USA	RCT	1900	Group A	Group B	Primary	0.28	24	High quality
58	Young et al.	2018	UK	Case-control	3300	Group A	Group B	Secondary	0.13	11	Medium quality
59	Green et al.	2020	USA	RCT	2000	Group A	Group B	Primary	0.34	28	High quality
60	King et al.	2017	UK	Observational	4300	Group A	Group B	Secondary	0.17	17	Medium quality
61	Wright et al.	2019	USA	RCT	2000	Group A	Group B	Primary	0.29	25	High quality
62	Scott et al.	2018	UK	Cohort	4700	Group A	Group B	Secondary	0.18	18	Medium quality
63	Walker et al.	2020	USA	RCT	2100	Group A	Group B	Primary	0.35	29	High quality
64	Harris et al.	2017	UK	Case-control	3400	Group A	Group B	Secondary	0.14	12	Medium quality
65	Clark et al.	2019	USA	RCT	2000	Group A	Group B	Primary	0.30	26	High quality
66	Ross et al.	2018	UK	Observational	4400	Group A	Group B	Secondary	0.18	19	Medium quality
67	Woods et al.	2020	USA	RCT	2200	Group A	Group B	Primary	0.36	30	High quality
68	Baker et al.	2017	UK	Cohort	4800	Group A	Group B	Secondary	0.19	20	Medium quality
69	Greenwood et al.	2019	USA	RCT	2100	Group A	Group B	Primary	0.31	27	High quality
70	Porter et al.	2018	UK	Case-control	3500	Group A	Group B	Secondary	0.15	13	Medium quality
71	Long et al.	2020	USA	RCT	2300	Group A	Group B	Primary	0.37	31	High quality
72	Phillips et al.	2017	UK	Observational	4500	Group A	Group B	Secondary	0.19	21	Medium quality
73	Carter et al.	2019	USA	RCT	2200	Group A	Group B	Primary	0.32	28	High quality
74	Evans et al.	2018	UK	Cohort	4900	Group A	Group B	Secondary	0.20	22	Medium quality
75	Turner et al.	2020	USA	RCT	2400	Group A	Group B	Primary	0.38	32	High quality
76	Roberts et al.	2017	UK	Case-control	3600	Group A	Group B	Secondary	0.16	14	Medium quality
77	Walters et al.	2019	USA	RCT	2300	Group A	Group B	Primary	0.33	29	High quality
78	Young et al.	2018	UK	Observational	4600	Group A	Group B	Secondary	0.20	23	Medium quality
79	Green et al.	2020	USA	RCT	2500	Group A	Group B	Primary	0.39	33	High quality
80	King et al.	2017	UK	Cohort	5000	Group A	Group B	Secondary	0.21	24	Medium quality
81	Wright et al.	2019	USA	RCT	2400	Group A	Group B	Primary	0.34	30	High quality
82	Scott et al.	2018	UK	Case-control	3700	Group A	Group B	Secondary	0.17	15	Medium quality
83	Walker et al.	2020	USA	RCT	2600	Group A	Group B	Primary	0.40	34	High quality
84	Harris et al.	2017	UK	Observational	4700	Group A	Group B	Secondary	0.21	25	Medium quality
85	Clark et al.	2019	USA	RCT	2500	Group A	Group B	Primary	0.35	31	High quality
86	Ross et al.	2018	UK	Cohort	5100	Group A	Group B	Secondary	0.22	26	Medium quality
87	Woods et al.	2020	USA	RCT	2700	Group A	Group B	Primary	0.41	35	High quality
88	Baker et al.	2017	UK	Case-control	3800	Group A	Group B	Secondary	0.18	16	Medium quality
89	Greenwood et al.	2019	USA	RCT	2600	Group A	Group B	Primary	0.36	32	High quality
90	Porter et al.	2018	UK	Observational	4800	Group A	Group B	Secondary	0.22	27	Medium quality
91	Long et al.	2020	USA	RCT	2800	Group A	Group B	Primary	0.42	36	High quality
92	Phillips et al.	2017	UK	Cohort	5200	Group A	Group B	Secondary	0.23	28	Medium quality
93	Carter et al.	2019	USA	RCT	2700	Group A	Group B	Primary	0.37	33	High quality
94	Evans et al.	2018	UK	Case-control	3900	Group A	Group B	Secondary	0.19	17	Medium quality
95	Turner et al.	2020	USA	RCT	2900	Group A	Group B	Primary	0.43	37	High quality
96	Roberts et al.	2017	UK	Observational	4900	Group A	Group B	Secondary	0.23	29	Medium quality
97	Walters et al.	2019	USA	RCT	2800	Group A	Group B	Primary	0.38	34	High quality
98	Young et al.	2018	UK	Cohort	5300	Group A	Group B	Secondary	0.24	30	Medium quality
99	Green et al.	2020	USA	RCT	3000	Group A	Group B	Primary	0.44	38	High quality
100	King et al.	2017	UK	Case-control	4000	Group A	Group B	Secondary	0.20	20	Medium quality

Study	Author	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Quality Score	Notes
1	Smith et al.	2018	USA	RCT	1000	Group A	Group B	Primary	85	High quality RCT
2	Johnson et al.	2019	UK	Cohort	5000	Group A	Group B	Secondary	70	Large cohort study
3	Chen et al.	2020	China	RCT	2000	Group A	Group B	Primary	90	Well conducted RCT
4	Patel et al.	2017	India	Quasi-experimental	3000	Group A	Group B	Primary	60	Quasi-experimental design
5	Lee et al.	2016	South Korea	RCT	1500	Group A	Group B	Primary	80	RCT with good reporting
6	Wang et al.	2015	China	Case-control	800	Group A	Group B	Secondary	55	Case-control study
7	Miller et al.	2014	USA	Retrospective	12000	Group A	Group B	Secondary	45	Retrospective analysis
8	Kim et al.	2013	South Korea	Prospective	6000	Group A	Group B	Primary	75	Prospective study
9	Nguyen et al.	2012	Vietnam	Cross-sectional	4000	Group A	Group B	Secondary	40	Cross-sectional survey
10	Anderson et al.	2011	USA	RCT	900	Group A	Group B	Primary	88	RCT with low bias
11	Thompson et al.	2010	UK	Case-control	700	Group A	Group B	Secondary	50	Case-control study
12	White et al.	2009	USA	Retrospective	11000	Group A	Group B	Secondary	48	Retrospective analysis
13	Black et al.	2008	UK	Prospective	5500	Group A	Group B	Primary	78	Prospective study
14	Green et al.	2007	USA	Cross-sectional	3500	Group A	Group B	Secondary	42	Cross-sectional survey
15	Harris et al.	2006	USA	RCT	1100	Group A	Group B	Primary	82	RCT with good reporting
16	Clark et al.	2005	UK	Case-control	650	Group A	Group B	Secondary	52	Case-control study
17	Evans et al.	2004	USA	Retrospective	10500	Group A	Group B	Secondary	46	Retrospective analysis
18	Turner et al.	2003	UK	Prospective	6200	Group A	Group B	Primary	76	Prospective study
19	Phillips et al.	2002	USA	Cross-sectional	3800	Group A	Group B	Secondary	44	Cross-sectional survey
20	Carter et al.	2001	USA	RCT	950	Group A	Group B	Primary	84	RCT with low bias
21	Scott et al.	2000	UK	Case-control	750	Group A	Group B	Secondary	54	Case-control study
22	Wright et al.	1999	USA	Retrospective	11500	Group A	Group B	Secondary	47	Retrospective analysis
23	King et al.	1998	UK	Prospective	6800	Group A	Group B	Primary	79	Prospective study
24	Wells et al.	1997	USA	Cross-sectional	4200	Group A	Group B	Secondary	43	Cross-sectional survey
25	Edwards et al.	1996	USA	RCT	1050	Group A	Group B	Primary	86	RCT with low bias
26	Cook et al.	1995	UK	Case-control	800	Group A	Group B	Secondary	56	Case-control study
27	Morgan et al.	1994	USA	Retrospective	12500	Group A	Group B	Secondary	49	Retrospective analysis
28	Baker et al.	1993	UK	Prospective	7200	Group A	Group B	Primary	81	Prospective study
29	Oliver et al.	1992	USA	Cross-sectional	4500	Group A	Group B	Secondary	41	Cross-sectional survey
30	Chapman et al.	1991	USA	RCT	1150	Group A	Group B	Primary	87	RCT with low bias
31	Stephens et al.	1990	UK	Case-control	850	Group A	Group B	Secondary	58	Case-control study
32	Wheeler et al.	1989	USA	Retrospective	13000	Group A	Group B	Secondary	51	Retrospective analysis
33	Cox et al.	1988	UK	Prospective	7800	Group A	Group B	Primary	83	Prospective study
34	Ward et al.	1987	USA	Cross-sectional	4800	Group A	Group B	Secondary	40	Cross-sectional survey
35	Wong et al.	1986	USA	RCT	1200	Group A	Group B	Primary	89	RCT with low bias
36	Chapman et al.	1985	UK	Case-control	900	Group A	Group B	Secondary	60	Case-control study
37	Edwards et al.	1984	USA	Retrospective	13500	Group A	Group B	Secondary	53	Retrospective analysis
38	Turner et al.	1983	UK	Prospective	8500	Group A	Group B	Primary	85	Prospective study
39	Phillips et al.	1982	USA	Cross-sectional	5200	Group A	Group B	Secondary	39	Cross-sectional survey
40	Carter et al.	1981	USA	RCT	1250	Group A	Group B	Primary	91	RCT with low bias
41	Scott et al.	1980	UK	Case-control	950	Group A	Group B	Secondary	62	Case-control study
42	Wright et al.	1979	USA	Retrospective	14000	Group A	Group B	Secondary	55	Retrospective analysis
43	King et al.	1978	UK	Prospective	9200	Group A	Group B	Primary	87	Prospective study
44	Wells et al.	1977	USA	Cross-sectional	5500	Group A	Group B	Secondary	38	Cross-sectional survey
45	Edwards et al.	1976	USA	RCT	1300	Group A	Group B	Primary	93	RCT with low bias
46	Cook et al.	1975	UK	Case-control	1000	Group A	Group B	Secondary	64	Case-control study
47	Morgan et al.	1974	USA	Retrospective	14500	Group A	Group B	Secondary	57	Retrospective analysis
48	Baker et al.	1973	UK	Prospective	10000	Group A	Group B	Primary	89	Prospective study
49	Oliver et al.	1972	USA	Cross-sectional	6000	Group A	Group B	Secondary	37	Cross-sectional survey
50	Chapman et al.	1971	USA	RCT	1350	Group A	Group B	Primary	95	RCT with low bias
51	Stephens et al.	1970	UK	Case-control	1050	Group A	Group B	Secondary	66	Case-control study
52	Wheeler et al.	1969	USA	Retrospective	15000	Group A	Group B	Secondary	61	Retrospective analysis
53	Cox et al.	1968	UK	Prospective	10500	Group A	Group B	Primary	91	Prospective study
54	Ward et al.	1967	USA	Cross-sectional	6500	Group A	Group B	Secondary	36	Cross-sectional survey
55	Wong et al.	1966	USA	RCT	1400	Group A	Group B	Primary	97	RCT with low bias
56	Chapman et al.	1965	UK	Case-control	1100	Group A	Group B	Secondary	68	Case-control study
57	Edwards et al.	1964	USA	Retrospective	15500	Group A	Group B	Secondary	65	Retrospective analysis
58	Turner et al.	1963	UK	Prospective	11000	Group A	Group B	Primary	93	Prospective study
59	Phillips et al.	1962	USA	Cross-sectional	7000	Group A	Group B	Secondary	35	Cross-sectional survey
60	Carter et al.	1961	USA	RCT	1450	Group A	Group B	Primary	99	RCT with low bias
61	Scott et al.	1960	UK	Case-control	1150	Group A	Group B	Secondary	70	Case-control study
62	Wright et al.	1959	USA	Retrospective	16000	Group A	Group B	Secondary	67	Retrospective analysis
63	King et al.	1958	UK	Prospective	11500	Group A	Group B	Primary	95	Prospective study
64	Wells et al.	1957	USA	Cross-sectional	7500	Group A	Group B	Secondary	34	Cross-sectional survey
65	Edwards et al.	1956	USA	RCT	1500	Group A	Group B	Primary	101	RCT with low bias
66	Cook et al.	1955	UK	Case-control	1200	Group A	Group B	Secondary	72	Case-control study
67	Morgan et al.	1954	USA	Retrospective	16500	Group A	Group B	Secondary	69	Retrospective analysis
68	Baker et al.	1953	UK	Prospective	12000	Group A	Group B	Primary	97	Prospective study
69	Oliver et al.	1952	USA	Cross-sectional	8000	Group A	Group B	Secondary	33	Cross-sectional survey
70	Chapman et al.	1951	USA	RCT	1550	Group A	Group B	Primary	103	RCT with low bias
71	Stephens et al.	1950	UK	Case-control	1250	Group A	Group B	Secondary	74	Case-control study
72	Wheeler et al.	1949	USA	Retrospective	17000	Group A	Group B	Secondary	71	Retrospective analysis
73	Cox et al.	1948	UK	Prospective	12500	Group A	Group B	Primary	99	Prospective study
74	Ward et al.	1947	USA	Cross-sectional	8500	Group A	Group B	Secondary	32	Cross-sectional survey
75	Wong et al.	1946	USA	RCT	1600	Group A	Group B	Primary	105	RCT with low bias
76	Chapman et al.	1945	UK	Case-control	1300	Group A	Group B	Secondary	76	Case-control study
77	Edwards et al.	1944	USA	Retrospective	17500	Group A	Group B	Secondary	73	Retrospective analysis
78	Turner et al.	1943	UK	Prospective	13000	Group A	Group B	Primary	101	Prospective study
79	Phillips et al.	1942	USA	Cross-sectional	9000	Group A	Group B	Secondary	31	Cross-sectional survey
80	Carter et al.	1941	USA	RCT	1650	Group A	Group B	Primary	107	RCT with low bias
81	Scott et al.	1940	UK	Case-control	1350	Group A	Group B	Secondary	78	Case-control study
82	Wright et al.	1939	USA	Retrospective	18000	Group A	Group B	Secondary	75	Retrospective analysis
83	King et al.	1938	UK	Prospective	13500	Group A	Group B	Primary	103	Prospective study
84	Wells et al.	1937	USA	Cross-sectional	9500	Group A	Group B	Secondary	30	Cross-sectional survey
85	Edwards et al.	1936	USA	RCT	1700	Group A	Group B	Primary	109	RCT with low bias
86	Cook et al.	1935	UK	Case-control	1400	Group A	Group B	Secondary	80	Case-control study
87	Morgan et al.	1934	USA	Retrospective	18500	Group A	Group B	Secondary	77	Retrospective analysis
88	Baker et al.	1933	UK	Prospective	14000	Group A	Group B	Primary	105	Prospective study
89	Oliver et al.	1932	USA	Cross-sectional	10000	Group A	Group B	Secondary	29	Cross-sectional survey
90	Chapman et al.	1931	USA	RCT	1750	Group A	Group B	Primary	111	RCT with low bias
91	Stephens et al.	1930	UK	Case-control	1450	Group A	Group B	Secondary	82	Case-control study
92	Wheeler et al.	1929	USA	Retrospective	19000	Group A	Group B	Secondary	79	Retrospective analysis
93	Cox et al.	1928	UK	Prospective	14500	Group A	Group B	Primary	107	Prospective study
94	Ward et al.	1927	USA	Cross-sectional	10500	Group A	Group B	Secondary	28	Cross-sectional survey
95	Wong et al.	1926	USA	RCT	1800	Group A	Group B	Primary	113	RCT with low bias
96	Chapman et al.	1925	UK	Case-control	1500	Group A	Group B	Secondary	84	Case-control study
97	Edwards et al.	1924	USA	Retrospective	19500	Group A	Group B	Secondary	81	Retrospective analysis
98	Turner et al.	1923	UK	Prospective	15000	Group A	Group B	Primary	109	Prospective study
99	Phillips et al.	1922	USA	Cross-sectional	11000	Group A	Group B	Secondary	27	Cross-sectional survey
100	Carter et al.	1921	USA	RCT	1850	Group A	Group B	Primary	115	RCT with low bias
101	Scott et al.	1920	UK	Case-control	1550	Group A	Group B	Secondary	86	Case-control study
102	Wright et al.	1919	USA	Retrospective	20000	Group A	Group B	Secondary	83	Retrospective analysis
103	King et al.	1918	UK	Prospective	15500	Group A	Group B	Primary	111	Prospective study
104	Wells et al.	1917	USA	Cross-sectional	11500	Group A	Group B	Secondary	26	Cross-sectional survey
105	Edwards et al.	1916	USA	RCT	1900	Group A	Group B	Primary	117	RCT with low bias
106	Cook et al.	1915	UK	Case-control	1600	Group A	Group B	Secondary	88	Case-control study
107	Morgan et al.	1914	USA	Retrospective	20500	Group A	Group B	Secondary	85	Retrospective analysis
108	Baker et al.	1913	UK	Prospective	16000	Group A	Group B	Primary	113	Prospective study
109	Oliver et al.	1912	USA	Cross-sectional	12000	Group A	Group B	Secondary	25	Cross-sectional survey
110	Chapman et al.	1911	USA	RCT	1950	Group A	Group B	Primary	119	RCT with low bias
111	Stephens et al.	1910	UK	Case-control	1650	Group A	Group B	Secondary	90	Case-control study
112	Wheeler et al.	1909	USA	Retrospective	21000	Group A	Group B	Secondary	87	Retrospective analysis
113	Cox et al.	1908	UK	Prospective	16500	Group A	Group B	Primary	115	Prospective study
114	Ward et al.	1907	USA	Cross-sectional	12500	Group A	Group B	Secondary	24	Cross-sectional survey
115	Wong et al.	1906	USA	RCT	2000	Group A	Group B	Primary	121	RCT with low bias
116	Chapman et al.	1905	UK	Case-control	1700	Group A	Group B	Secondary	92	Case-control study
117	Edwards et al.	1904	USA	Retrospective	21500	Group A	Group B	Secondary	89	Retrospective analysis
118	Turner et al.	1903	UK	Prospective	17000	Group A	Group B	Primary	117	Prospective study
119	Phillips et al.	1902	USA	Cross-sectional	13000	Group A	Group B	Secondary	23	Cross-sectional survey
120	Carter et al.	1901	USA	RCT	2050	Group A	Group B	Primary	123	RCT with low bias
121	Scott et al.	1900	UK	Case-control	1750	Group A	Group B	Secondary	94	Case-control study
122	Wright et al.	1899	USA	Retrospective	22000	Group A	Group B	Secondary	91	Retrospective analysis
123	King et al.	1898	UK	Prospective	17500	Group A	Group B	Primary	119	Prospective study
124	Wells et al.	1897	USA	Cross-sectional	13500	Group A	Group B	Secondary	22	Cross-sectional survey
125	Edwards et al.	1896	USA	RCT	2100	Group A	Group B	Primary	125	RCT with low bias
126	Cook et al.	1895	UK	Case-control	1800	Group A	Group B	Secondary	96	Case-control study
127	Morgan et al.	1894	USA	Retrospective	22500	Group A	Group B	Secondary	93	Retrospective analysis
128	Baker et al.	1893	UK	Prospective	18000	Group A	Group B	Primary	121	Prospective study
129	Oliver et al.	1892	USA	Cross-sectional	14000	Group A	Group B	Secondary	21	Cross-sectional survey
130	Chapman et al.	1891	USA	RCT	2150	Group A	Group B	Primary	127	RCT with low bias
131	Stephens et al.	1890	UK	Case-control	1850	Group A	Group B	Secondary	98	Case-control study
132	Wheeler et al.	1889	USA	Retrospective	23000	Group A	Group B	Secondary	95	Retrospective analysis
133	Cox et al.	1888	UK	Prospective	18500	Group A	Group B	Primary	123	Prospective study
134	Ward et al.	1887	USA	Cross-sectional	14500	Group A	Group B	Secondary	20	Cross-sectional survey
135	Wong et al.	1886	USA	RCT	2200	Group A	Group B	Primary	129	RCT with low bias
136	Chapman et al.	1885	UK	Case-control	1900	Group A	Group B	Secondary	100	Case-control study
137	Edwards et al.	1884	USA	Retrospective	23500	Group A	Group B	Secondary	97	Retrospective analysis
138	Turner et al.	1883	UK	Prospective	19000	Group A	Group B	Primary	125	Prospective study
139	Phillips et al.	1882	USA	Cross-sectional	15000	Group A	Group B	Secondary	19	Cross-sectional survey
140	Carter et al.	1881	USA	RCT	22					

Study	Author	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Quality Score	Notes
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Study	Author	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Effect Size	Quality	Notes
1	Smith et al.	2018	USA	RCT	1000	Group A	Group B	Primary	0.15	High	...
2	Johnson et al.	2019	UK	Cohort	5000	Group C	Group D	Secondary	0.10	Medium	...
3	Chen et al.	2020	China	RCT	2000	Group E	Group F	Primary	0.20	High	...
4	Lee et al.	2017	South Korea	Quasi-experimental	3000	Group G	Group H	Primary	0.12	Medium	...
5	Patel et al.	2019	India	RCT	1500	Group I	Group J	Primary	0.18	High	...
6	Wang et al.	2018	China	Case-control	800	Group K	Group L	Secondary	0.08	Medium	...
7	Nguyen et al.	2020	Vietnam	RCT	1200	Group M	Group N	Primary	0.14	High	...
8	Al-Sayid et al.	2019	Saudi Arabia	Cohort	4000	Group O	Group P	Secondary	0.09	Medium	...
9	Kim et al.	2018	South Korea	RCT	900	Group Q	Group R	Primary	0.16	High	...
10	De Silva et al.	2017	Sri Lanka	Quasi-experimental	2500	Group S	Group T	Primary	0.11	Medium	...
11	Okonkwo et al.	2019	Nigeria	RCT	1800	Group U	Group V	Primary	0.17	High	...
12	Almeida et al.	2018	Brazil	Cohort	6000	Group W	Group X	Secondary	0.07	Medium	...
13	Yamamoto et al.	2020	Japan	RCT	1100	Group Y	Group Z	Primary	0.13	High	...
14	Al-Raddadi et al.	2019	Saudi Arabia	Case-control	700	Group AA	Group AB	Secondary	0.06	Medium	...
15	Chen et al.	2018	China	RCT	1300	Group AC	Group AD	Primary	0.19	High	...
16	Nguyen et al.	2017	Vietnam	Quasi-experimental	2200	Group AE	Group AF	Primary	0.10	Medium	...
17	Al-Sayid et al.	2018	Saudi Arabia	Cohort	4500	Group AG	Group AH	Secondary	0.08	Medium	...
18	Kim et al.	2019	South Korea	RCT	950	Group AI	Group AJ	Primary	0.15	High	...
19	De Silva et al.	2018	Sri Lanka	Quasi-experimental	2800	Group AK	Group AL	Primary	0.11	Medium	...
20	Okonkwo et al.	2017	Nigeria	RCT	1600	Group AM	Group AN	Primary	0.17	High	...
21	Almeida et al.	2019	Brazil	Cohort	5500	Group AO	Group AP	Secondary	0.07	Medium	...
22	Yamamoto et al.	2018	Japan	RCT	1050	Group AQ	Group AR	Primary	0.13	High	...
23	Al-Raddadi et al.	2017	Saudi Arabia	Case-control	750	Group AS	Group AT	Secondary	0.06	Medium	...
24	Chen et al.	2019	China	RCT	1400	Group AU	Group AV	Primary	0.18	High	...
25	Nguyen et al.	2018	Vietnam	Quasi-experimental	2400	Group AW	Group AX	Primary	0.10	Medium	...
26	Al-Sayid et al.	2017	Saudi Arabia	Cohort	4200	Group AY	Group AZ	Secondary	0.08	Medium	...
27	Kim et al.	2018	South Korea	RCT	920	Group BA	Group BB	Primary	0.15	High	...
28	De Silva et al.	2017	Sri Lanka	Quasi-experimental	2600	Group BC	Group BD	Primary	0.11	Medium	...
29	Okonkwo et al.	2018	Nigeria	RCT	1700	Group BE	Group BF	Primary	0.17	High	...
30	Almeida et al.	2018	Brazil	Cohort	5200	Group BG	Group BH	Secondary	0.07	Medium	...
31	Yamamoto et al.	2019	Japan	RCT	1020	Group BI	Group BJ	Primary	0.13	High	...
32	Al-Raddadi et al.	2018	Saudi Arabia	Case-control	720	Group BK	Group BL	Secondary	0.06	Medium	...
33	Chen et al.	2017	China	RCT	1350	Group BM	Group BN	Primary	0.19	High	...
34	Nguyen et al.	2017	Vietnam	Quasi-experimental	2300	Group BO	Group BP	Primary	0.10	Medium	...
35	Al-Sayid et al.	2018	Saudi Arabia	Cohort	4300	Group BQ	Group BR	Secondary	0.08	Medium	...
36	Kim et al.	2017	South Korea	RCT	910	Group BS	Group BT	Primary	0.15	High	...
37	De Silva et al.	2018	Sri Lanka	Quasi-experimental	2700	Group BU	Group BV	Primary	0.11	Medium	...
38	Okonkwo et al.	2017	Nigeria	RCT	1650	Group BW	Group BX	Primary	0.17	High	...
39	Almeida et al.	2017	Brazil	Cohort	5100	Group BY	Group BZ	Secondary	0.07	Medium	...
40	Yamamoto et al.	2017	Japan	RCT	1010	Group CA	Group CB	Primary	0.13	High	...
41	Al-Raddadi et al.	2017	Saudi Arabia	Case-control	710	Group CC	Group CD	Secondary	0.06	Medium	...
42	Chen et al.	2016	China	RCT	1320	Group CE	Group CF	Primary	0.19	High	...
43	Nguyen et al.	2016	Vietnam	Quasi-experimental	2250	Group CG	Group CH	Primary	0.10	Medium	...
44	Al-Sayid et al.	2017	Saudi Arabia	Cohort	4100	Group CI	Group CJ	Secondary	0.08	Medium	...
45	Kim et al.	2016	South Korea	RCT	900	Group CK	Group CL	Primary	0.15	High	...
46	De Silva et al.	2016	Sri Lanka	Quasi-experimental	2550	Group CM	Group CN	Primary	0.11	Medium	...
47	Okonkwo et al.	2016	Nigeria	RCT	1600	Group CO	Group CP	Primary	0.17	High	...
48	Almeida et al.	2016	Brazil	Cohort	5000	Group CQ	Group CR	Secondary	0.07	Medium	...
49	Yamamoto et al.	2016	Japan	RCT	1000	Group CS	Group CT	Primary	0.13	High	...
50	Al-Raddadi et al.	2016	Saudi Arabia	Case-control	700	Group CU	Group CV	Secondary	0.06	Medium	...
51	Chen et al.	2015	China	RCT	1280	Group CW	Group CX	Primary	0.19	High	...
52	Nguyen et al.	2015	Vietnam	Quasi-experimental	2200	Group CY	Group CZ	Primary	0.10	Medium	...
53	Al-Sayid et al.	2016	Saudi Arabia	Cohort	4000	Group DA	Group DB	Secondary	0.08	Medium	...
54	Kim et al.	2015	South Korea	RCT	880	Group DC	Group DD	Primary	0.15	High	...
55	De Silva et al.	2015	Sri Lanka	Quasi-experimental	2500	Group DE	Group DF	Primary	0.11	Medium	...
56	Okonkwo et al.	2015	Nigeria	RCT	1550	Group DG	Group DH	Primary	0.17	High	...
57	Almeida et al.	2015	Brazil	Cohort	4900	Group DI	Group DJ	Secondary	0.07	Medium	...
58	Yamamoto et al.	2015	Japan	RCT	980	Group DK	Group DL	Primary	0.13	High	...
59	Al-Raddadi et al.	2015	Saudi Arabia	Case-control	680	Group DM	Group DN	Secondary	0.06	Medium	...
60	Chen et al.	2014	China	RCT	1250	Group DO	Group DP	Primary	0.19	High	...
61	Nguyen et al.	2014	Vietnam	Quasi-experimental	2150	Group DQ	Group DR	Primary	0.10	Medium	...
62	Al-Sayid et al.	2015	Saudi Arabia	Cohort	3900	Group DS	Group DT	Secondary	0.08	Medium	...
63	Kim et al.	2014	South Korea	RCT	860	Group DU	Group DV	Primary	0.15	High	...
64	De Silva et al.	2014	Sri Lanka	Quasi-experimental	2450	Group DW	Group DX	Primary	0.11	Medium	...
65	Okonkwo et al.	2014	Nigeria	RCT	1500	Group DY	Group DZ	Primary	0.17	High	...
66	Almeida et al.	2014	Brazil	Cohort	4800	Group EA	Group EB	Secondary	0.07	Medium	...
67	Yamamoto et al.	2014	Japan	RCT	960	Group EC	Group ED	Primary	0.13	High	...
68	Al-Raddadi et al.	2014	Saudi Arabia	Case-control	660	Group EE	Group EF	Secondary	0.06	Medium	...
69	Chen et al.	2013	China	RCT	1220	Group EG	Group EH	Primary	0.19	High	...
70	Nguyen et al.	2013	Vietnam	Quasi-experimental	2100	Group EI	Group EJ	Primary	0.10	Medium	...
71	Al-Sayid et al.	2014	Saudi Arabia	Cohort	3800	Group EK	Group EL	Secondary	0.08	Medium	...
72	Kim et al.	2013	South Korea	RCT	840	Group EM	Group EN	Primary	0.15	High	...
73	De Silva et al.	2013	Sri Lanka	Quasi-experimental	2400	Group EO	Group EP	Primary	0.11	Medium	...
74	Okonkwo et al.	2013	Nigeria	RCT	1450	Group EQ	Group ER	Primary	0.17	High	...
75	Almeida et al.	2013	Brazil	Cohort	4700	Group ES	Group ET	Secondary	0.07	Medium	...
76	Yamamoto et al.	2013	Japan	RCT	940	Group EU	Group EV	Primary	0.13	High	...
77	Al-Raddadi et al.	2013	Saudi Arabia	Case-control	640	Group EW	Group EX	Secondary	0.06	Medium	...
78	Chen et al.	2012	China	RCT	1190	Group EY	Group EZ	Primary	0.19	High	...
79	Nguyen et al.	2012	Vietnam	Quasi-experimental	2050	Group FA	Group FB	Primary	0.10	Medium	...
80	Al-Sayid et al.	2013	Saudi Arabia	Cohort	3700	Group FC	Group FD	Secondary	0.08	Medium	...
81	Kim et al.	2012	South Korea	RCT	820	Group FE	Group FF	Primary	0.15	High	...
82	De Silva et al.	2012	Sri Lanka	Quasi-experimental	2350	Group FG	Group FH	Primary	0.11	Medium	...
83	Okonkwo et al.	2012	Nigeria	RCT	1400	Group FI	Group FJ	Primary	0.17	High	...
84	Almeida et al.	2012	Brazil	Cohort	4600	Group FK	Group FL	Secondary	0.07	Medium	...
85	Yamamoto et al.	2012	Japan	RCT	920	Group FM	Group FN	Primary	0.13	High	...
86	Al-Raddadi et al.	2012	Saudi Arabia	Case-control	620	Group FO	Group FP	Secondary	0.06	Medium	...
87	Chen et al.	2011	China	RCT	1160	Group FQ	Group FR	Primary	0.19	High	...
88	Nguyen et al.	2011	Vietnam	Quasi-experimental	2000	Group FS	Group FT	Primary	0.10	Medium	...
89	Al-Sayid et al.	2012	Saudi Arabia	Cohort	3600	Group FU	Group FV	Secondary	0.08	Medium	...
90	Kim et al.	2011	South Korea	RCT	800	Group FW	Group FX	Primary	0.15	High	...
91	De Silva et al.	2011	Sri Lanka	Quasi-experimental	2300	Group FY	Group FZ	Primary	0.11	Medium	...
92	Okonkwo et al.	2011	Nigeria	RCT	1350	Group GA	Group GB	Primary	0.17	High	...
93	Almeida et al.	2011	Brazil	Cohort	4500	Group GC	Group GD	Secondary	0.07	Medium	...
94	Yamamoto et al.	2011	Japan	RCT	900	Group GE	Group GF	Primary	0.13	High	...
95	Al-Raddadi et al.	2011	Saudi Arabia	Case-control	600	Group GG	Group GH	Secondary	0.06	Medium	...
96	Chen et al.	2010	China	RCT	1130	Group GI	Group GJ	Primary	0.19	High	...
97	Nguyen et al.	2010	Vietnam	Quasi-experimental	1950	Group GK	Group GL	Primary	0.10	Medium	...
98	Al-Sayid et al.	2011	Saudi Arabia	Cohort	3500	Group GM	Group GN	Secondary	0.08	Medium	...
99	Kim et al.	2010	South Korea	RCT	780	Group GO	Group GP	Primary	0.15	High	...
100	De Silva et al.	2010	Sri Lanka	Quasi-experimental	2250	Group GQ	Group GR	Primary	0.11	Medium	...
101	Okonkwo et al.	2010	Nigeria	RCT	1300	Group GS	Group GT	Primary	0.17	High	...
102	Almeida et al.	2010	Brazil	Cohort	4400	Group GU	Group GV	Secondary	0.07	Medium	...
103	Yamamoto et al.	2010	Japan	RCT	880	Group GW	Group GX	Primary	0.13	High	...
104	Al-Raddadi et al.	2010	Saudi Arabia	Case-control	580	Group GY	Group GZ	Secondary	0.06	Medium	...
105	Chen et al.	2009	China	RCT	1100	Group HA	Group HB	Primary	0.19	High	...
106	Nguyen et al.	2009	Vietnam	Quasi-experimental	1900	Group HC	Group HD	Primary	0.10	Medium	...
107	Al-Sayid et al.	2010	Saudi Arabia	Cohort	3400	Group HE	Group HF	Secondary	0.08	Medium	...
108	Kim et al.	2009	South Korea	RCT	760	Group HG	Group HH	Primary	0.15	High	...
109	De Silva et al.	2009	Sri Lanka	Quasi-experimental	2200	Group HI	Group HJ	Primary	0.11	Medium	...
110	Okonkwo et al.	2009	Nigeria	RCT	1250	Group HK	Group HL	Primary	0.17	High	...
111	Almeida et al.	2009	Brazil	Cohort	4300	Group HM	Group HN	Secondary	0.07	Medium	...
112	Yamamoto et al.	2009	Japan	RCT	860	Group HO	Group HP	Primary	0.13	High	...
113	Al-Raddadi et al.	2009	Saudi Arabia	Case-control	560	Group HQ	Group HR	Secondary	0.06	Medium	...
114	Chen et al.	2008	China	RCT	1070	Group HS	Group HT	Primary	0.19	High	...
115	Nguyen et al.	2008	Vietnam	Quasi-experimental	1850	Group HU	Group HV	Primary	0.10	Medium	...
116	Al-Sayid et al.	2009	Saudi Arabia	Cohort	3300	Group HW	Group HX	Secondary	0.08	Medium	...
117	Kim et al.	2008	South Korea	RCT	740	Group HY	Group HZ	Primary	0.15	High	...
118	De Silva et al.	2008	Sri Lanka	Quasi-experimental	2150	Group IA	Group IB	Primary	0.11	Medium	...
119	Okonkwo et al.	2008	Nigeria	RCT	1200	Group IC	Group ID	Primary	0.17	High	...
120	Almeida et al.	2008	Brazil	Cohort	4200	Group IE	Group IF	Secondary	0.07	Medium	...
121	Yamamoto et al.	2008	Japan	RCT	840	Group IG	Group IH	Primary	0.13	High	...
122	Al-Raddadi et al.	2008	Saudi Arabia	Case-control	540	Group II	Group IJ	Secondary	0.06	Medium	...
123	Chen et al.	2007	China	RCT	1040	Group IK	Group IL	Primary	0.19	High	...
124	Nguyen et al.	2007	Vietnam	Quasi-experimental	1800	Group IM	Group IN	Primary	0.10	Medium	...
125	Al-Sayid et al.	2008	Saudi Arabia	Cohort	3200	Group IO	Group IP	Secondary	0.08	Medium	...
126	Kim et al.	2007	South Korea	RCT	720	Group IQ	Group IR	Primary	0.15	High	...
127	De Silva et al.	2007	Sri Lanka	Quasi-experimental	2100	Group IS	Group IT	Primary	0.11	Medium	...
128	Okonkwo et al.	2007	Nigeria	RCT	1150	Group IU	Group IV	Primary	0.17	High	...
129	Almeida et al.	2007	Brazil	Cohort	4100	Group IW	Group IX	Secondary	0.07	Medium	...
130	Yamamoto et al.	2007	Japan	RCT	820	Group IY	Group IZ	Primary	0.13	High	...
131	Al-Raddadi et al.	2007	Saudi Arabia	Case-control	520	Group JA	Group JB	Secondary	0.06	Medium	...
132	Chen et al.	2006	China	RCT							

Study	Author	Year	Country	Design	Sample Size	Intervention	Comparison	Outcome	Quality Score	Notes
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