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LAMPIRAN

1. Lembar Penilaian JBI

Blood Pb Levels in Pregnant Nigerian Women in Abakaliki, South-Eastern Nigeria						
JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL COHORT STUDIES						
Reviewer : A. Nur Awalia Salshabila						
Author : Ugwuja <i>et al.</i> , 2012						
		Yes	No	Unclear	N/A	Keterangan
1	Were the two groups similar and recruited from the same population?	√				Kedua kelompok direkrut dari populasi yang sama
2	Were the exposures measured similarly to assign people to both exposed and unexposed groups?	√				Eksposure diukur dengan metode yang sama pada dua Kelompok
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were confounding factors identified?	√				Faktor perancu pada penelitian ini dijelaskan
5	Were strategies to deal with confounding factors stated?	√				Startegi untuk mengatasi faktor perancu dijelaskan
6	Were the groups/participants free of the outcome at the start of the study (or at the moment of exposure)?	√				Pada awal penelitian populasi masih belum diketahui apakah terpapar atau tidak
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was the follow up time reported and sufficient to be long enough for outcomes to occur?	√				Waktu terkait tindak lanjut terjelaskan pada artikel
9	Was follow up complete, and if not, were the reasons to loss to follow up described and explored?	√				Tindak lanjut diselesaikan
10	Were strategies to address incomplete follow up utilized?				√	Strategi untuk mengatasi tindak lanjut yang tidak lengkap tidak digunakan dalam penelitian ini karena semua peserta diikuti sampai persalinan selesai
11	Was appropriate statistical analysis used?	√				Analisis statistik digunakan
Overall appraisal : 91%		Include : √		Seek further info : -		
Comments (including reason for exclution) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

Sources of Potential Lead Exposure Among Pregnant Women in New Mexico

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES

Reviewer : A. Nur Awalia Salshabila

Author : Bakhireva *et al.*, 2012

		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exclution) : Masuk ke tahap sintesis karena memiliki skor ≥50%						

**Associations of Internal-Migration Status with Maternal Exposure to Stress, Lead,
and Selenium Deficiency Among Pregnant Women in Shanghai, China**

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES

Reviewer : A. Nur Awalia Salshabila
Author : Jiang *et al.*, 2018

		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exclution) : Masuk ke tahap sintesis karena memiliki skor ≥50%						

**Evaluation of Low Blood Lead Levels and Its Association with Oxidative Stress
in Pregnant Anemic Women: A Comparative Prospective Study**

JBICRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CASE CONTROLS

Reviewer : A. Nur Awalia Salshabila

Author : Tiwari *et al.*, 2012

		Yes	No	Unclear	N/A	Keterangan
1	Were the groups comparable other than the presence of disease in cases or the absence of disease in controls?	√				Semua subjek penelitian memiliki karakteristik yang sama selain penyakit dalam kasus atau tidak adanya penyakit dalam kontrol.
2	Were cases and controls matched appropriately?	√				Kelompok kasus dan control dipasangkan dengan tepat
3	Were the same criteria used for identification of cases and controls?	√				Kriteria yang sama digunakan untuk mengidentifikasi kelompok kasus dan kontrol
4	Was exposure measured in a standard, valid and reliable way?	√				Eksposur diukur dengan valid
5	Was exposure measured in the same way for cases and controls?	√				Pengukuran eksposur kelompok kasus dan kontrol dilakukan dengan cara yang sama
6	Were confounding factors identified?	√				Variabel pengganggu ter jelaskan
7	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi faktor pengganggu ter jelaskan
8	Were outcomes assessed in a standard, valid and reliable way for cases and controls?	√				Hasil dinilai dengan cara standar, valid, dan tepat untuk kasus dan kontrol.
9	Was the exposure period of interest long enough to be meaningful?	√				Waktu paparan cukup lama untuk menunjukkan hubungan antara pemaparan dan hasilnya.
10	Was appropriate statistical analysis used?	√				Menggunakan analisis statistic yang tepat
Overall appraisal : 100%		Include : √			Seek further info : -	
Comments (including reason for exlusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

Prevalence of Elevated Blood Lead Levels Among Pregnant Women and Sources of Lead Exposure In Rural Bangladesh: A Case Control Study

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CASE CONTROLS

Reviewer : A. Nur Awalia Salshabila

Author : Forsyth *et al.*, 2018

		Yes	No	Unclear	N/A	Keterangan
1	Were the groups comparable other than the presence of disease in cases or the absence of disease in controls?	√				Semua subjek penelitian memiliki karakteristik yang sama selain penyakit dalam kasus atau tidak adanya penyakit dalam kontrol.
2	Were cases and controls matched appropriately?	√				Kelompok kasus dan control dipasangkan dengan tepat
3	Were the same criteria used for identification of cases and controls?	√				Kriteria yang sama digunakan untuk mengidentifikasi kelompok kasus dan kontrol
4	Was exposure measured in a standard, valid and reliable way?	√				Eksposur diukur dengan valid
5	Was exposure measured in the same way for cases and controls?	√				Pengukuran eksposur kelompok kasus dan kontrol dilakukan dengan cara yang sama
6	Were confounding factors identified?	√				Variabel pengganggu ter jelaskan
7	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi faktor pengganggu ter jelaskan
8	Were outcomes assessed in a standard, valid and reliable way for cases and controls?	√				Hasil dinilai dengan cara standar, valid, dan tepat untuk kasus dan kontrol.
9	Was the exposure period of interest long enough to be meaningful?	√				Waktu paparan cukup lama untuk menunjukkan hubungan antara pemaparan dan hasilnya.
10	Was appropriate statistical analysis used?	√				Menggunakan analisis statistic yang tepat
Overall appraisal : 100%		Include : √			Seek further info : -	
Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

The construction and validation of a lead exposure screening tool for pregnant women in Thailand (ThaiL8Is)						
JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES						
Reviewer : A. Nur Awalia Salshabila						
Author : Waeyang <i>et al.</i> , 2022						
		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √			Seek further info : -	
Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

The construction and validation of a lead exposure screening tool for pregnant women in Thailand (ThaiL8Is)						
JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES						
Reviewer : A. Nur Awalia Salshabila						
Author : Waeyang <i>et al.</i> , 2022						
		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

**Association between blood lead exposure and mental health in pregnant women:
Results from the Japan environment and children s study**

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES

Reviewer : A. Nur Awalia Salshabila
Author : Ishitsuka *et al.*, 2016

		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

Environmental cadmium and lead exposure and anti-Mullerian hormone in pregnant women

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES

Reviewer : A. Nur Awalia Salshabila

Author : Christensen *et al.*, 2016

		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

Exposure to common-use pesticides, manganese, lead, and thyroid function among pregnant women from the Infants Environmental Health (ISA) study, Costa Rica

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES

Reviewer : A. Nur Awalia Salshabila

Author : Corrales *et al.*, 2022

		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

Association of raised blood lead levels in pregnant women with preeclampsia: A study at tertiary centre						
JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES						
Reviewer : A. Nur Awalia Salshabila						
Author : Disha <i>et al.</i> , 2019						
		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exclution) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

**Blood mercury, lead, cadmium, manganese and selenium levels in pregnant women and their determinants:
the Japan Environment and Children s Study (JECS)**

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL COHORT STUDIES

Reviewer : A. Nur Awalia Salshabila
Author : Ugwuja *et al.*, 2019

		Yes	No	Unclear	N/A	Keterangan
1	Were the two groups similar and recruited from the same population?	√				Kedua kelompok direkrut dari populasi yang sama
2	Were the exposures measured similarly to assign people to both exposed and unexposed groups?	√				Eksposure diukur dengan metode yang sama pada dua Kelompok
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were confounding factors identified?	√				Faktor perancu pada penelitian ini dijelaskan
5	Were strategies to deal with confounding factors stated?	√				Startegi untuk mengatasi faktor perancu dijelaskan
6	Were the groups/participants free of the outcome at the start of the study (or at the moment of exposure)?	√				Pada awal penelitian populasi masih belum diketahui apakah terpapar atau tidak
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was the follow up time reported and sufficient to be long enough for outcomes to occur?	√				Waktu terkait tindak lanjut terjelaskan pada artikel
9	Was follow up complete, and if not, were the reasons to loss to follow up described and explored?	√				Tindak lanjut diselesaikan
10	Were strategies to address incomplete follow up utilized?	√				Strategi untuk mengatasi tindak lanjut yang tidak lengkap digunakan
11	Was appropriate statistical analysis used?	√				Analisis statistik digunakan

Overall appraisal : 100%

Include : √

Seek further info : -

Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$

Mercury and lead blood concentrations in pregnant women from 10 caribbean countries

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES

Reviewer : A. Nur Awalia Salshabila

Author : Forde *et al.*, 2014

		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

Relationship Between Blood Lead Levels and Hematological Indices in Pregnant Women

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES

Reviewer : A. Nur Awalia Salshabila
 Author : La-Llave-León *et al.*, 2014

		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi ter jelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting ter jelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

**Blood Lead Levels and Risk Factors For Lead Exposure Among Pregnant Women
In Western French Guiana: The Role of Manioc Consumption**

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES

Reviewer : A. Nur Awalia Salshabila
Author : Rimbaud *et al.*, 2017

		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor ≥50%						

Dietary Patterns Are Not Consistently Associated with Variability in Blood Lead Concentrations in Pregnant British Women

JBI CRITICAL APPRAISAL CHECKLIST FOR ANALYTICAL COHORT STUDIES

Reviewer : A. Nur Awalia Salshabila
 Author : Taylor *et al.*, 2019

		Yes	No	Unclear	N/A	Keterangan
1	Were the two groups similar and recruited from the same population?	√				Kedua kelompok direkrut dari populasi yang sama
2	Were the exposures measured similarly to assign people to both exposed and unexposed groups?	√				Ekspose diukur dengan metode yang sama pada dua Kelompok
3	Was the exposure measured in a valid and reliable way?	√				Ekspose diukur dengan jelas
4	Were confounding factors identified?	√				Faktor perancu pada penelitian ini dijelaskan
5	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi faktor perancu dijelaskan
6	Were the groups/participants free of the outcome at the start of the study (or at the moment of exposure)?	√				Pada awal penelitian populasi masih belum diketahui apakah terpapar atau tidak
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was the follow up time reported and sufficient to be long enough for outcomes to occur?	√				Waktu terkait tindak lanjut terjelaskan pada artikel
9	Was follow up complete, and if not, were the reasons to loss to follow up described and explored?	√				Tindak lanjut diselesaikan
10	Were strategies to address incomplete follow up utilized?	√				Strategi untuk mengatasi tindak lanjut yang tidak lengkap digunakan
11	Was appropriate statistical analysis used?	√				Analisis statistik digunakan

Overall appraisal : 100%

Include : √

Seek further info : -

Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$

**Blood Lead Levels and Risk Factors For Lead Exposure Among Pregnant Women
In Western French Guiana: The Role of Manioc Consumption**

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES

Reviewer : A. Nur Awalia Salshabila
Author : Ohtsu *et al.*, 2019

		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exclusion) : Masuk ke tahap sintesis karena memiliki skor ≥50%						

Lead Exposure Assessment among Pregnant Women, Newborns, and Children: Case Study from Karachi, Pakistan

JBICRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES

Reviewer : A. Nur Awalia Salshabila
 Author : Fatmi *et al.*, 2017

		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exlusion) : Masuk ke tahap sintesis karena memiliki skor ≥50%						

Association between Blood Lead Levels and Delta-Aminolevulinic Acid Dehydratase in Pregnant Women						
JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES						
Reviewer : A. Nur Awalia Salshabila						
Author : La-Llave-León <i>et al.</i> , 2017						
		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √			Seek further info : -	
Comments (including reason for exlusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

Assessment of a Screening Questionnaire to Identify Exposure to Lead in Pregnant Women						
JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES						
Reviewer : A. Nur Awalia Salshabila						
Author : Coiplet <i>et al.</i> , 2020						
		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for excludtion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

Detection of Relevant Heavy Metal Concentrations in Human Placental Tissue: Relationship between the Concentrations of Hg, As, Pb and Cd and the Diet of the Pregnant Woman

JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES

Reviewer : A. Nur Awalia Salshabila
 Author : Molina-Mesa *et al.*, 2022

		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √		Seek further info : -		
Comments (including reason for exlusion) : Masuk ke tahap sintesis karena memiliki skor ≥50%						

Blood lead levels in pregnant women referring to midwifery clinic in a referral center in Tehran						
JBI CRITICAL APPRAISAL CHECLIST FOR ANALYTICAL CROSS-SECTIONAL STUDIES						
Reviewer : A. Nur Awalia Salshabila						
Author : Hassanian-Moghaddam <i>et al.</i> , 2018						
		Yes	No	Unclear	N/A	Keterangan
1	Were the criteria for inclusion in the sample clearly defined?	√				Kriteria inklusi terjelaskan
2	Were the study subjects and the setting described in detail?	√				Subjek penelitian dan setting terjelaskan
3	Was the exposure measured in a valid and reliable way?	√				Eksposure diukur dengan jelas
4	Were objective, standard criteria used for measurement of the condition?	√				Standar kriteria yang digunakan dinilai dengan objektif
5	Were confounding factors identified?	√				Faktor perancu dijelaskan
6	Were strategies to deal with confounding factors stated?	√				Strategi untuk mengatasi factor perancu dijelaskan
7	Were the outcomes measured in a valid and reliable way?	√				Hasil diukur dengan valid
8	Was appropriate statistical analysis used?	√				Menggunakan analisis statistik yang tepat
Overall appraisal : 100%		Include : √			Seek further info : -	
Comments (including reason for exlusion) : Masuk ke tahap sintesis karena memiliki skor $\geq 50\%$						

2. Karakteristik Umum Setiap Studi untuk Penelitian *Systematic Review*: Perbedaan Kadar Timbal dalam Darah Ibu Hamil yang Bermukim di Pesisir dan Bukan Pesisir

Penulis	Tahun	Judul	Desain Penelitian	Negara	Pesisir/ Bukan	Jumlah Sampel	Pb- Level (Mean) ($\mu\text{g/dl}$)	Metode Analisis
Ugwuja <i>et al.</i>	2012	<i>Blood Pb Levels in pregnant Nigerian women in Abakaliki, South-Eastern Nigeria</i>	Kohort	Nigeria	Pesisir	349	36.4	Descriptive
Bakhireva <i>et al.</i>	2012	<i>Sources of Potential Lead Exposure Among Pregnant Women in New Mexico</i>	<i>Cross-Sectional</i>	New Mexico	Bukan	140	0.64	Multiple Linear Regression; Partial Least Squares Discriminant Analysis
Jiang <i>et al.</i>	2018	<i>Associations of Internal-Migration Status with Maternal Exposure to Stress, Lead, and Selenium Deficiency Among Pregnant Women in Shanghai, China</i>	<i>Cross-Sectional</i>	China	Bukan	1684	4.4	Logistic regression and general linear models
Tiwari <i>et al.</i>	2012	<i>Evaluation of Low Blood Lead Levels and Its Association with Oxidative Stress in Pregnant Anemic Women: A Comparative Prospective Study</i>	<i>Case control</i>	India	Bukan	175	2.51	ANOVA
Forsyth <i>et al.</i>	2018	<i>Prevalence of elevated blood lead levels among pregnant women and sources of lead exposure in rural Bangladesh: A case control study</i>	<i>Case control</i>	Bangladesh	Bukan	430	4.7	WASH Benefit
Waeyeng <i>et al.</i>	2022	<i>The construction and validation of a lead exposure screening tool for pregnant women in Thailand (ThaiL8Is)</i>	<i>Cross-Sectional</i>	Thailand	Pesisir	30	5.87	<i>Chi-square; Fisher's exact; Independen t-test</i>

Penulis	Tahun	Judul	Desain Penelitian	Negara	Pesisir/ Bukan	Jumlah Sampel	Pb- Level (Mean) ($\mu\text{g/dl}$)	Metode Analisis
Li <i>et al.</i>	2017	<i>The non-linear association between low-level lead exposure and maternal stress among pregnant women</i>	<i>Cross-Sectional</i>	China	Bukan	1931	3.97	<i>Piecewise linear regression models</i>
Ishitsuka <i>et al.</i>	2016	<i>Association between blood lead exposure and mental health in pregnant women: Results from the Japan environment and children s study</i>	<i>Cross-Sectional</i>	Japan	Pesisir	17269	0.58	<i>Multinomial logistic regression.</i>
Christensen <i>et al.</i>	2016	<i>Environmental cadmium and lead exposure and anti-Mullerian hormone in pregnant women</i>	<i>Cross-Sectional</i>	Norway	Bukan	117	17.4	<i>General linear models</i>
Corrales <i>et al.</i>	2022	<i>Exposure to common-use pesticides, manganese, lead, and thyroid function among pregnant women from the Infants Environmental Health (ISA) study, Costa Rica</i>	<i>Cross-Sectional</i>	Costa Rica	Pesisir	400		<i>Descriptive</i>
Disha <i>et al.</i>	2019	<i>Association of raised blood lead levels in pregnant women with preeclampsia: A study at tertiary centre</i>	<i>Cross-Sectional</i>	India	Bukan	44	2.38	<i>Graphpad Instat</i>
Nakayama <i>et al.</i>	2019	<i>Blood mercury, lead, cadmium, manganese and selenium levels in pregnant women and their determinants: the Japan Environment and Children s Study (JECS)</i>	Kohort	Japan	Pesisir	17997	0.63	<i>Pearman's correlation coefficient; multivariate models</i>
Forde <i>et al.</i>	2014	<i>Mercury and lead blood concentrations in pregnant women from 10 caribbean countries</i>	<i>Cross-Sectional</i>	Caribbean	Pesisir	441	1.98	<i>ANOVA; non-overlapping convidence intervals</i>

Penulis	Tahun	Judul	Desain Penelitian	Negara	Pesisir/ Bukan	Jumlah Sampel	Pb- Level (Mean) ($\mu\text{g/dl}$)	Metode Analisis
La-Llave-León <i>et al.</i>	2014	<i>Relationship Between Blood Lead Levels and Hematological Indices in Pregnant Women</i>	<i>Cross-Sectional</i>	Mexico	Bukan	292	2.79	<i>Kolmogorov-Smirnov test; Mann-Whitney U; Spearman's rank correlation coefficient; Multiple Linear Regression Kolmogorov-Smirnov;</i>
Rimbaud <i>et al.</i>	2017	<i>Blood lead levels and risk factors for lead exposure among pregnant women in western French Guiana: the role of manioc consumption</i>	<i>Cross-Sectional</i>	French Guiana	Bukan	531	32.6	<i>ANOVA</i>

3. Uji Mann-Whitney

NPar Tests

→ Mann-Whitney

[DataSet0]

Ranks

	Pesisir ata...	N	Mean Rank	Sum of Ranks
Kadar timbal dalam darah ibu hamil	Pesisir	9	12.17	109.50
	bukan pesisir	16	13.47	215.50
	Total	25		

Test Statistics^b

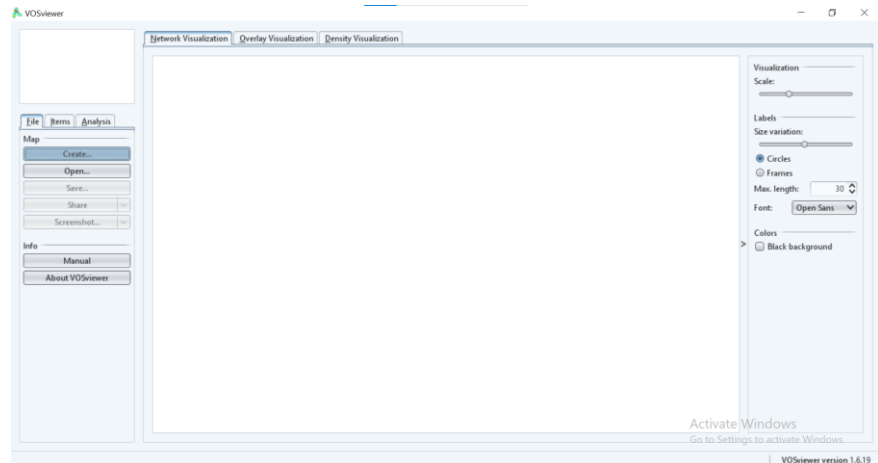
	Kadar timbal dalam darah ibu hamil
Mann-Whitney U	64.500
Wilcoxon W	109.500
Z	-.425
Asymp. Sig. (2-tailed)	.671
Exact Sig. [2*(1-tailed Sig.)]	.677 ^a

a. Not corrected for ties.

b. Grouping Variable: Pesisir atau bukan pesisir

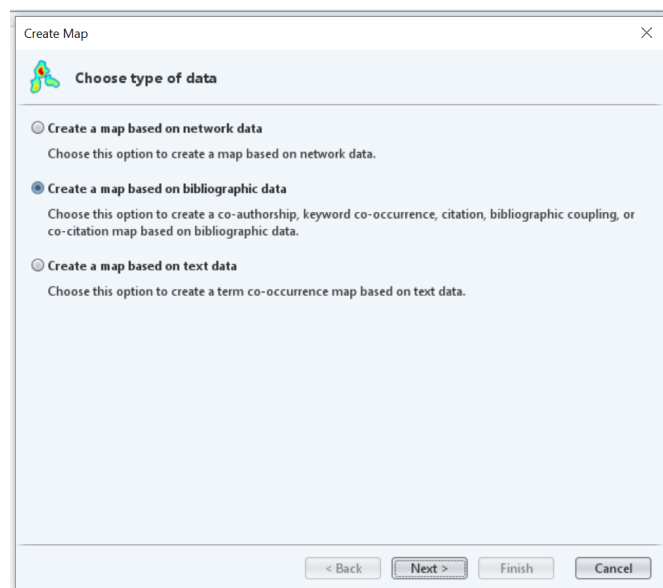
4. Tata cara impor data ke VOSviewer adalah sebagai berikut:

a. Klik *create*

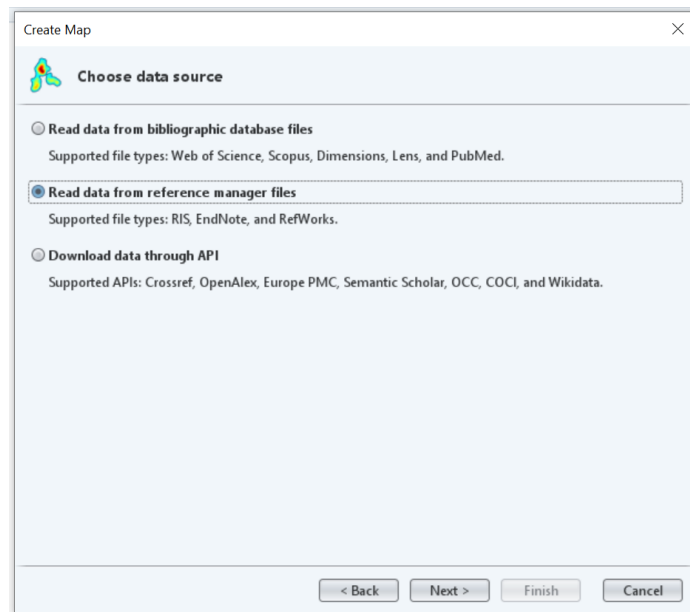


b. Memilih tipe data, ada 3 pilihan yang ditawarkan, yaitu:

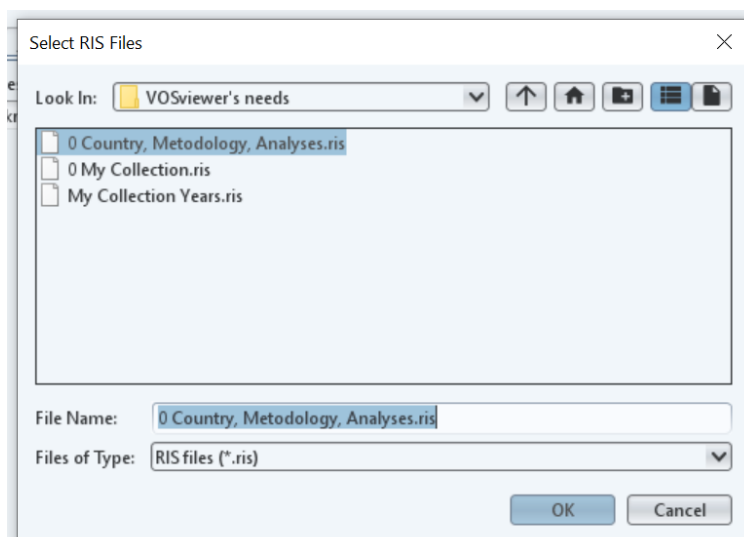
- 1) *Create a map based on network data*, jika sebelumnya sudah memiliki file pemetaan VOSviewer, atau file GML dan Pajek.
- 2) *Create a map based on bibliographic data*, jika ingin menganalisis kejadian kemunculan bersama kata kunci, penulis, kutipan dan tautan kutipan bersama dari data bibliografi.
- 3) *Create a map based on text data*



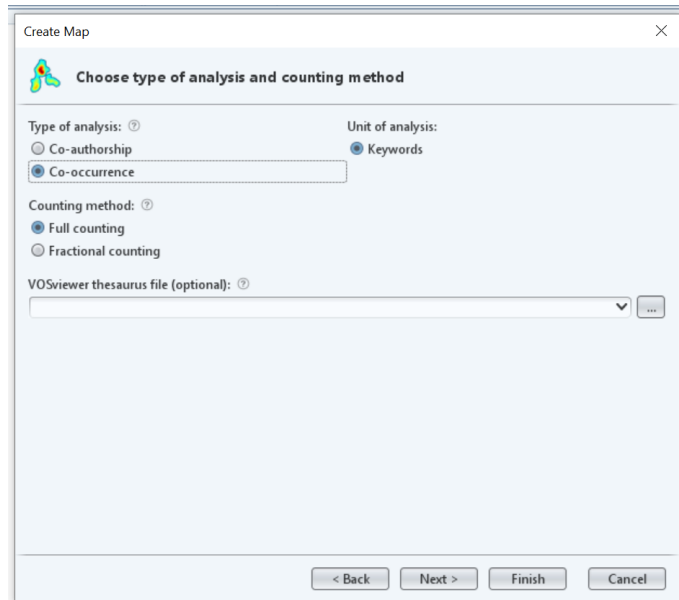
- c. Menentukan sumber data, data dapat bersumber dari file database bibliografi seperti Web of Science, Scopus, Dimension dan Pubmed. Jika menggunakan data yang diekspor dari file manajer referensi, tipe data seperti RIS, EndNote dan Refworks dapat dianalisis.



- d. Memilih file yang telah disiapkan sebelumnya



- e. Memilih tipe analisis lalu klik *next*, ada beberapa tipe analisis yang dapat digunakan

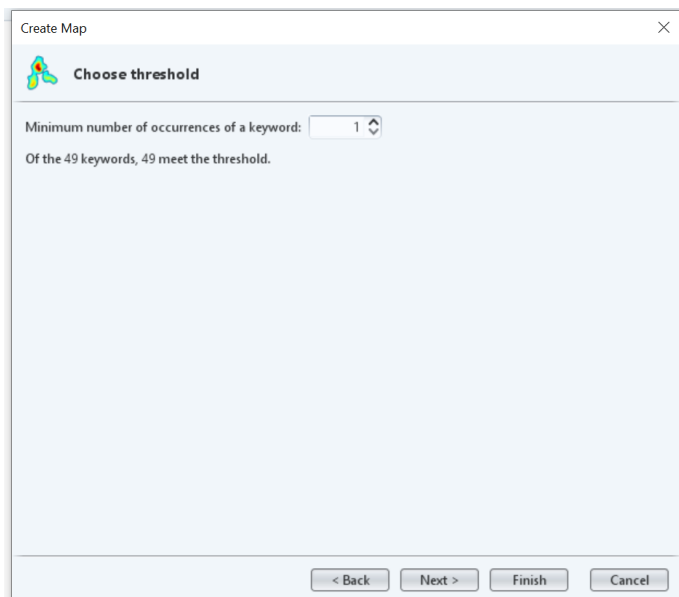


The screenshot shows a dialog box titled "Create Map" with a close button (X) in the top right corner. Below the title bar is a header area with a small icon and the text "Choose type of analysis and counting method". The main area contains several settings:

- Type of analysis:** Two radio buttons are present: "Co-authorship" (unselected) and "Co-occurrence" (selected).
- Unit of analysis:** Two radio buttons are present: "Keywords" (selected) and "Co-occurrence" (unselected).
- Counting method:** Two radio buttons are present: "Full counting" (selected) and "Fractional counting" (unselected).
- VOSviewer thesaurus file (optional):** A text input field with a dropdown arrow and a browse button ("...").

At the bottom of the dialog box, there are four buttons: "< Back", "Next >", "Finish", and "Cancel".

- f. Mengubah jumlah minimum kemunculan

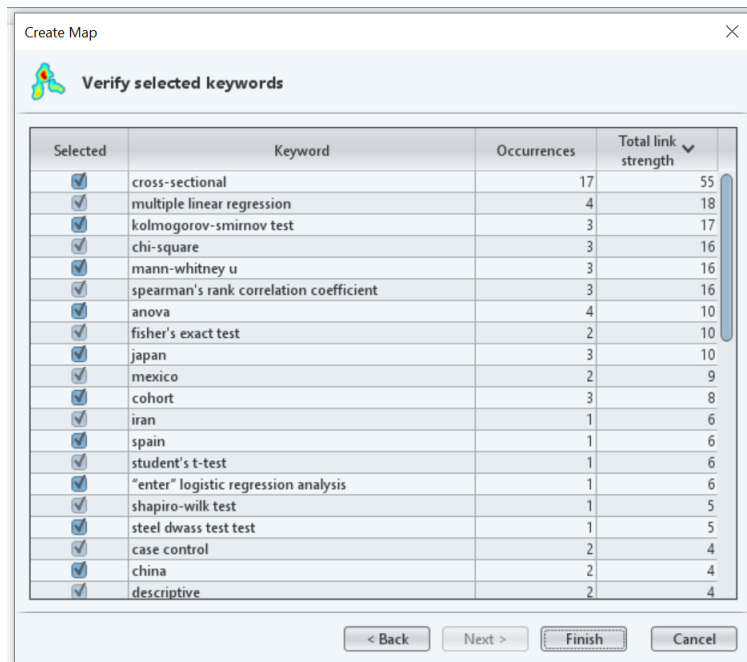


The screenshot shows a dialog box titled "Create Map" with a close button (X) in the top right corner. Below the title bar is a header area with a small icon and the text "Choose threshold". The main area contains:

- Minimum number of occurrences of a keyword:** A spin box with the value "1" and up/down arrows.
- Of the 49 keywords, 49 meet the threshold.** A text line indicating the current count of keywords meeting the threshold.

At the bottom of the dialog box, there are four buttons: "< Back", "Next >", "Finish", and "Cancel".

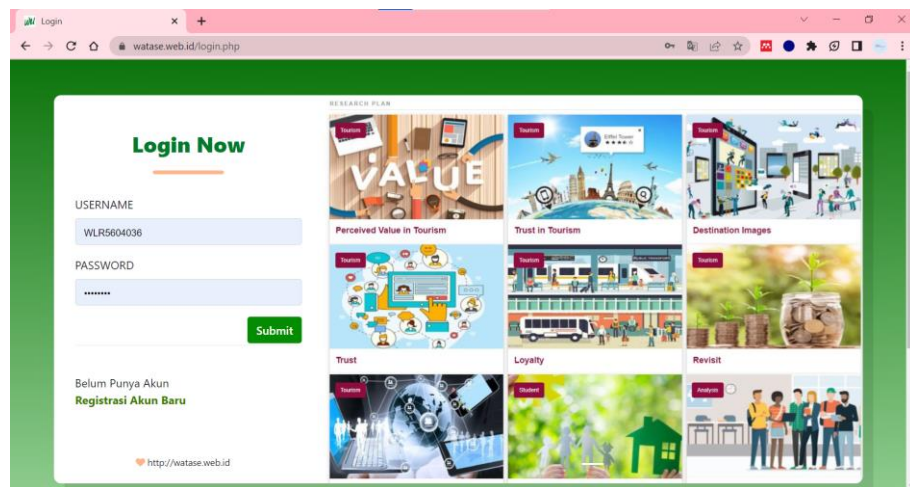
g. Ditampilkan dalam bentuk tabel, klik finish untuk melanjutkan.



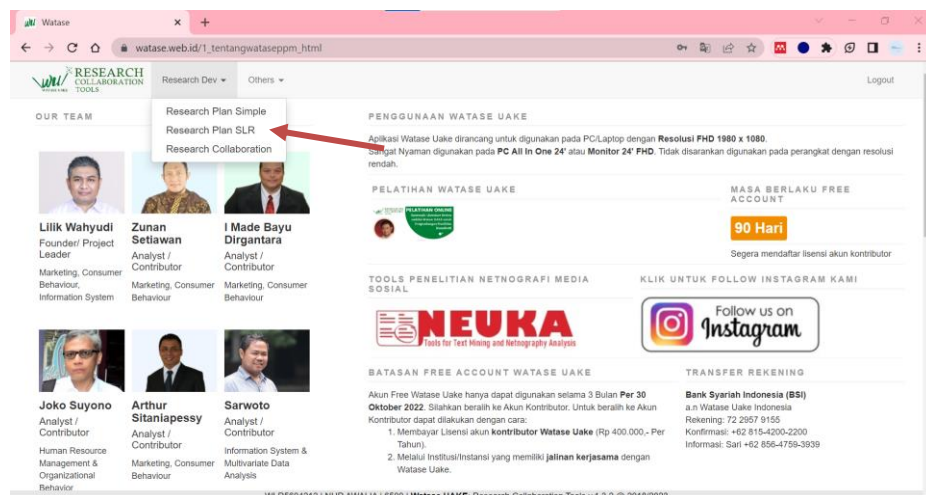
Selected	Keyword	Occurrences	Total link strength
<input checked="" type="checkbox"/>	cross-sectional	17	55
<input checked="" type="checkbox"/>	multiple linear regression	4	18
<input checked="" type="checkbox"/>	kolmogorov-smirnov test	3	17
<input checked="" type="checkbox"/>	chi-square	3	16
<input checked="" type="checkbox"/>	mann-whitney u	3	16
<input checked="" type="checkbox"/>	spearman's rank correlation coefficient	3	16
<input checked="" type="checkbox"/>	anova	4	10
<input checked="" type="checkbox"/>	fisher's exact test	2	10
<input checked="" type="checkbox"/>	japan	3	10
<input checked="" type="checkbox"/>	mexico	2	9
<input checked="" type="checkbox"/>	cohort	3	8
<input checked="" type="checkbox"/>	iran	1	6
<input checked="" type="checkbox"/>	spain	1	6
<input checked="" type="checkbox"/>	student's t-test	1	6
<input checked="" type="checkbox"/>	"enter" logistic regression analysis	1	6
<input checked="" type="checkbox"/>	shapiro-wilk test	1	5
<input checked="" type="checkbox"/>	steel dwass test test	1	5
<input checked="" type="checkbox"/>	case control	2	4
<input checked="" type="checkbox"/>	china	2	4
<input checked="" type="checkbox"/>	descriptive	2	4

5. Tahapan identifikasi dan skrining artikel di Watase UAKE adalah sebagai berikut:

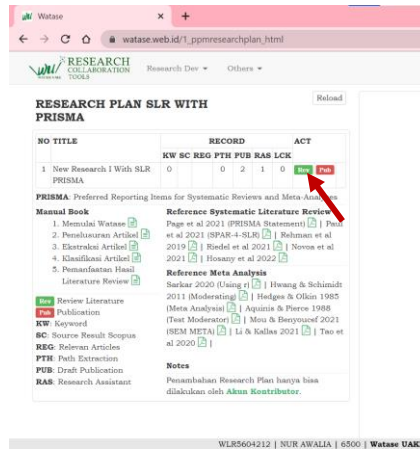
- a. Buka halaman web watase.web.id pada browser
- b. Login menggunakan akun yang telah terdaftar, jika belum mempunyai akun maka lakukan pendaftaran terlebih dahulu.



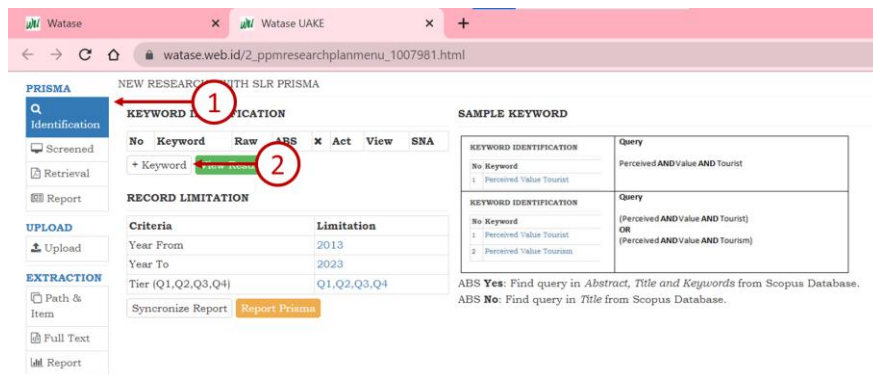
- c. Setelah login dan berada di halaman utama Watase, klik Research Dev dan pilih Simple Plan SLR untuk pembuatan *systematic review*.



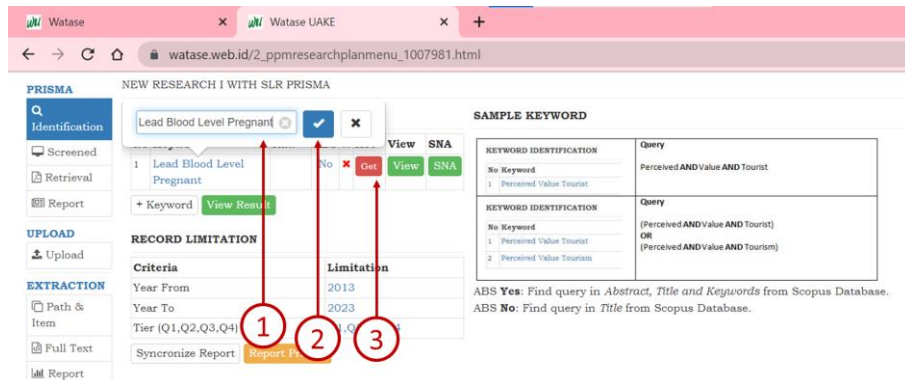
d. Klik Rev, kemudian akan diarahkan pada tab baru.



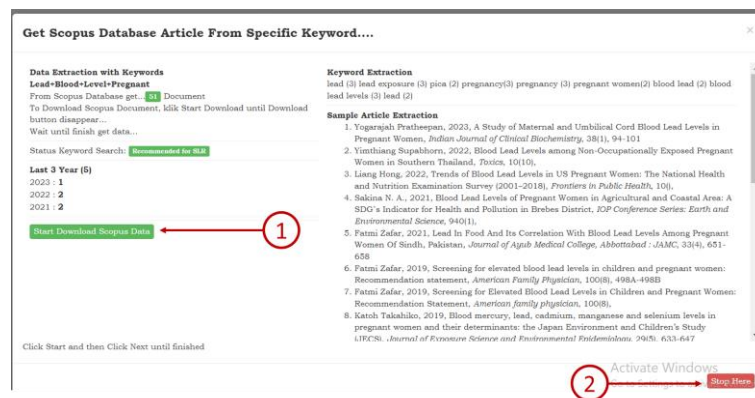
e. Klik menu Identification untuk pencarian jurnal.



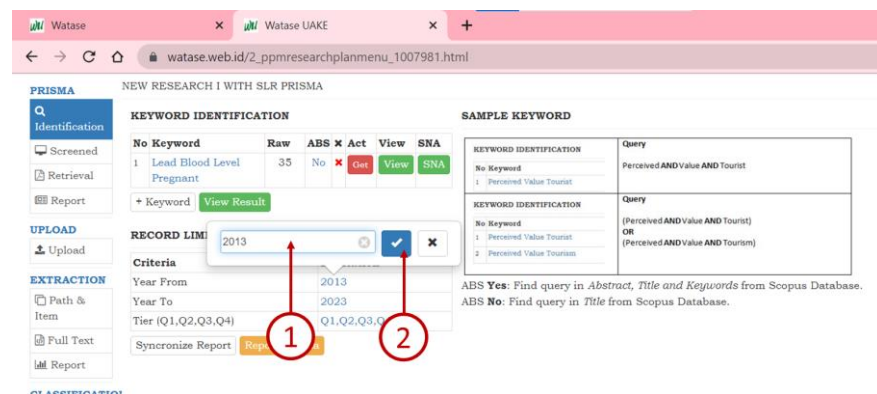
f. Untuk melakukan penelusuran artikel dengan kata kunci, klik +Keyword, lalu ketikkan pada kolom keyword kata kunci yang akan dicari dalam bahasa Inggris. Misal, penulis ingin mencari tentang timbal pada ibu hamil, maka di kolom keyword diketikkan *Lead Blood Level Pregnant*.



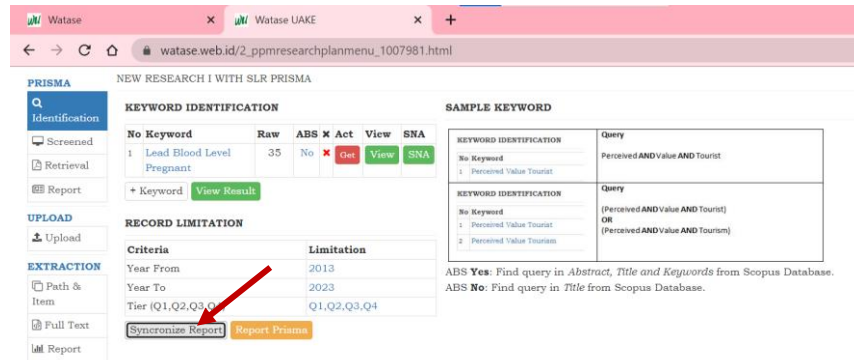
- g. Klik tombol Get, kemudian akan ditampilkan jumlah artikel dengan judul yang mengandung kata kunci *Lead Blood Level* dan *Pregnancy*. Untuk mendownload data scopus dokumen tersebut klik Start Download Scopus Data, maka akan dilakukan proses download per 25 dokumen. Dokumen yang diambil untuk watase adalah dokumen dengan jenis Artikel. Dokumen buku, konferensi dan lain-lain tidak diambil. Klik Next sampai semua data terdownload. Apabila sudah semua maka klik Stop Here.



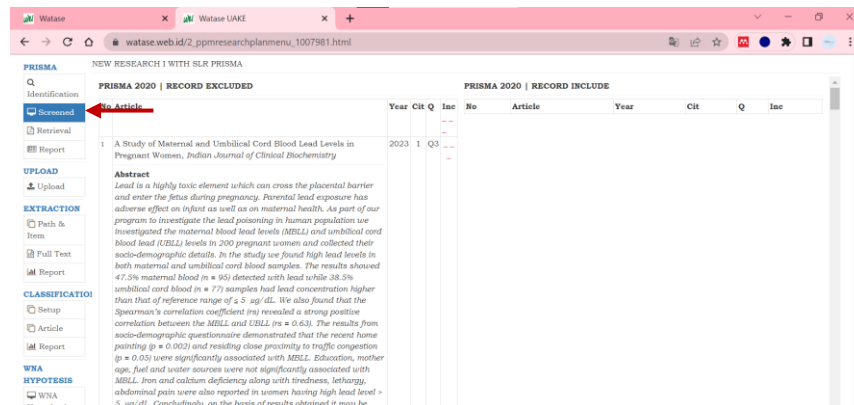
- h. Ulangi tahapan di atas dimulai dari memasukkan kata kunci untuk mencari artikel dengan kata kunci berbeda. Watase memungkinkan pencarian artikel dengan kombinasi kata kunci sebanyak-banyaknya.
- i. Lakukan pembatasan artikel dengan mengatur batasan tahun dan peringkatnya pada kolom Record Limitation.



- j. Apabila batasan sudah diatur, lalu klik Synchronize Report, tunggu prosesnya sampai selesai.



- k. Klik menu Screened untuk skrining artikel. Artikel yang ditemukan akan dilacak abstraknya oleh Watase. Artikel yang tidak memiliki abstrak tidak ditampilkan.



1. Pada tahap ini, peneliti memilah artikel yang relevan atau tidak berdasarkan abstrak dari artikel. Artikel tanpa abstrak tidak akan dimunculkan di bagian ini. Abstrak diambil dari database scopus. Artikel yang relevan klik pada kolom Inc, pilih Yes. Apabila tidak relevan, maka klik No.

PRISMA 2020 | RECORD EXCLUDED

5 Blood mercury, lead, cadmium, manganese and selenium levels in pregnant women and their determinants: the Japan Environment and Children's Study (JECS), *Journal of Exposure Science and Environmental Epidemiology*

Abstract
The Japan Environment and Children's Study (JECS) is a birth-cohort study of 100,000 mother-child dyads that aims to investigate the effect of the environment on child health and development. Mercury (Hg), lead (Pb), cadmium (Cd), manganese (Mn) and selenium (Se) are considered to be important co-exposures when examining the effect of other chemical substances on child development. The levels of these elements in the blood of 20,000 randomly selected mid-/late-term pregnant women from the whole JECS cohort were analysed using inductively coupled plasma-mass spectrometry. The median

2019 42 Q1

Yes ✓ X

m. Proses dilakukan pada semua artikel yang memiliki abstrak. Artikel yang relevan akan berpindah di sebelah kanan.

PRISMA 2020 | RECORD EXCLUDED

Tidak Dimasukkan

1 ALAD and APOE polymorphisms are associated with lead and mercury levels in Italian pregnant women and their newborns with adequate nutritional status of zinc and selenium. *Biometrical Research*

Abstract
The impacts of single-nucleotide polymorphisms (SNPs) in ALAD and YOR genes on Pb health effects and/or levels are inconclusive at low exposure levels, while studies including APOE SNPs are rare. In this study, we examined the associations of ALAD, YOR and APOE SNPs with exposure biomarkers of Pb and other trace elements (TEs) in Italian pregnant women (N = 673, aged 18–44 years) and their newborns (N = 619) with low-level mixed-element exposure through diet, the environment or endogenously. DNA from maternal peripheral venous blood (mB), sampled during the second and third trimesters, was genotyped for ALAD (rs1800435, rs1865313, rs1139488, rs1816708, rs22283570, rs1244412, rs7972322, rs721216) and APOE (rs429358, rs7421) using TaqMan SNP assays. Personal and lifestyle data and TE levels (mB, maternal plasma, hair and mixed umbilical cord blood (CB)) from the PRISMA project were used. Multiple linear regression models, controlling for confounding variables, were performed to test the associations between SNPs and TE. The geometric means of mB-Pb, mB-Mg, mB-Ae and mB-Cd (11.0 ng/g, 2.16 ng/g, 1.38 ng/g and 0.31 ng/g, respectively) indicated low exposure levels, whereas maternal plasma Zn and Se (0.72 µg/mL and 78.6 ng/g, respectively) indicated adequate micronutritional status. Variant alleles of ALAD rs1800435 and rs1865313 were negatively associated with mB-Pb levels, whereas a positive association was observed for rs1139488. None of the YOR SNPs or their haplotypes had any association with Pb levels. Regarding APOE,

2023 0 Q1

PRISMA 2020 | RECORD INCLUDE

Dimasukkan

46 A Study of Maternal and Umbilical Cord Blood Lead Levels in Pregnant Women. *Indian Journal of Clinical Biochemistry*

Abstract
Lead is a highly toxic element which can cross the placental barrier and enter the fetus during pregnancy. Parental lead exposure has adverse effect on infant as well as on maternal health. As part of our program to investigate the lead poisoning in human population we investigated the maternal blood lead levels (MBLL) and umbilical cord blood lead (CBLL) levels in 200 pregnant women and collected their socio-demographic details. In the study we found high lead levels in both maternal and umbilical cord blood samples. The results showed 47.5% maternal blood (n = 93) detected with lead while 38.5% umbilical cord blood (n = 77) samples had lead concentration higher than that of reference range of $5 \mu\text{g/dL}$. We also found that the Spearman's correlation coefficient (rs) revealed a strong positive correlation between the MBLL and CBLL (rs = 0.63). The results from socio-demographic questionnaire demonstrated that the recent home painting (p = 0.002) and residing close proximity to traffic congestion (p = 0.03) were significantly associated with MBLL. Education, mother age, fuel and water sources were not significantly associated with MBLL. Iron and calcium deficiency along with tiredness, lethargy, abdominal pain were also reported in women having high lead level > 5 µg/dL. Conclusively, on the basis of results obtained it may be stated that we found elevated BLLs in both pregnant women as well as in umbilical cord blood. The prevalence of elevated lead levels in mothers will expose the fetus to lead through placental barriers mobilization and it can have long term adverse effects on the developing fetus. Therefore, it is recommended that screening of blood lead levels be carried out in high-risk women based on their social,

2023 1 Q3

RIWAYAT HIDUP



A. IDENTITAS

Nama : A. Nur Awalia Salshabila
Tempat/Tanggal Lahir : Wtampone, 28 Agustus 2000
Jenis Kelamin : Perempuan
Agama : Islam
Suku : Bugis
Email : nurawaliasalshabila@gmail.com
No. Hp : 085240760510
Nama Orang Tua : Alm. H. A. Syamsuddin Palammai
Hj. Aisyah Amin, S.Ag

B. RIWAYAT PENDIDIKAN

1. SD : SDN 2 Manurunge
2. SMP : Madrasah Tsanawiyah Negeri 1 Bone
3. SMA : SMAN 1 Bone
4. Perguruan Tinggi : Fakultas Kesehatan Masyarakat
Universitas Hasanuddin