



Education-based oral health promotion interventions during pregnancy: A systematic review

Nabhira Aftabi Binte Islam, Keertika Orchi, Arna Chowdhury, Md Atiqul Haque
Preventive and Social Medicine Faculty, Bangabandhu Sheikh Mujib Medical University (BSMMU)
Dhaka, Bangladesh

Introduction:

Across the world, approximately 50% of pregnant women experience dental pain, 40% suffer from periodontal diseases and 70–90% have at least one dental problem. Maintaining good oral health during pregnancy is crucial.

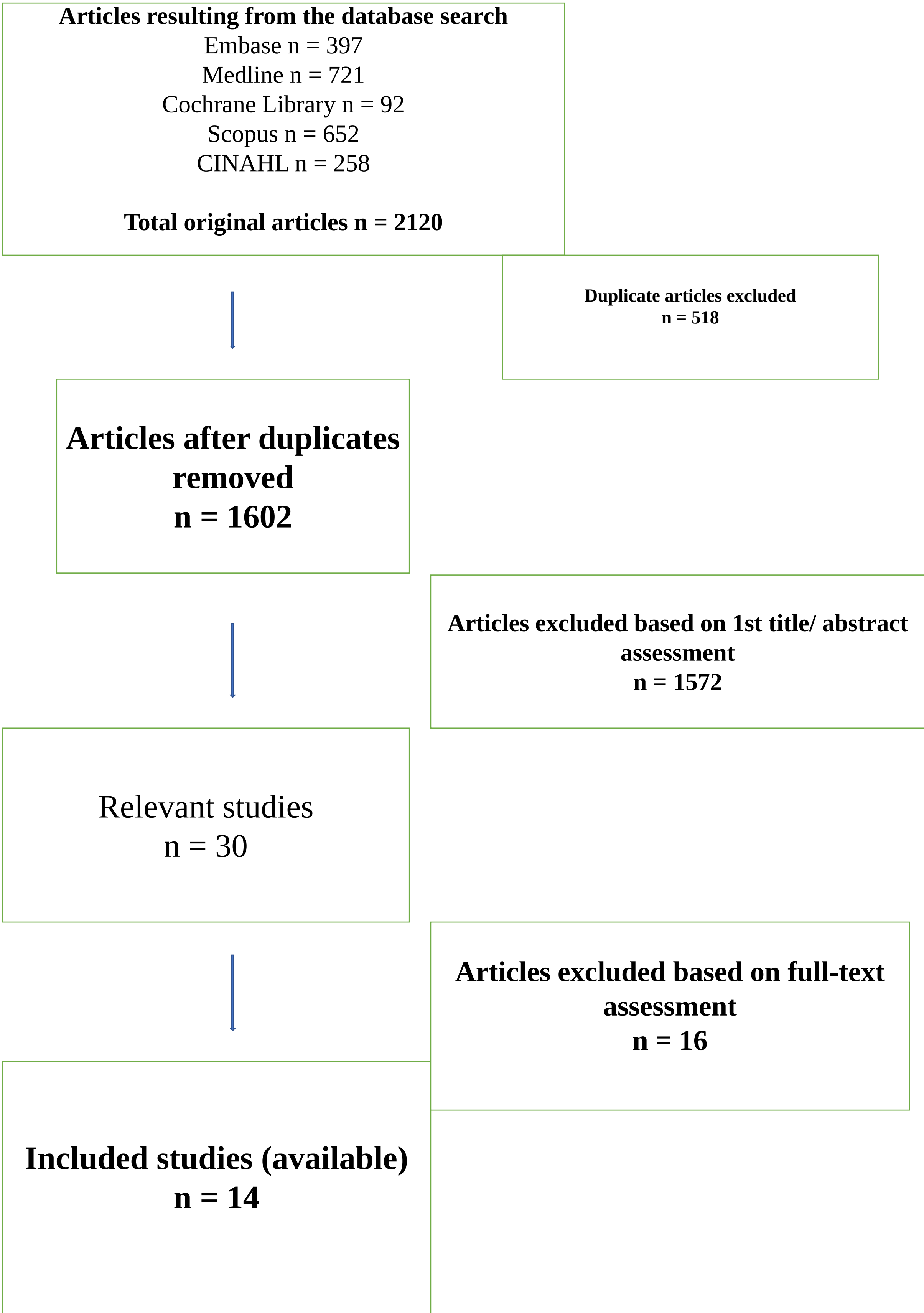
Methodology:

Articles published in English, from January 2014 to January 2024 were included.

Selecting framework:

P (Population) = Pregnant women of any gestational stage and demographic area aged from 15-45 years
I (Intervention) =Educational interventions delivered for promoting oral health only during pregnancy (e.g., education, counselling, preventive measures)
C (Comparison) =Any intervention, no intervention, usual care
O (outcome) = To evaluate changes in dental health and dental hygiene after oral health promotion regarding better periodontal health, enhanced oral hygiene practices and others.

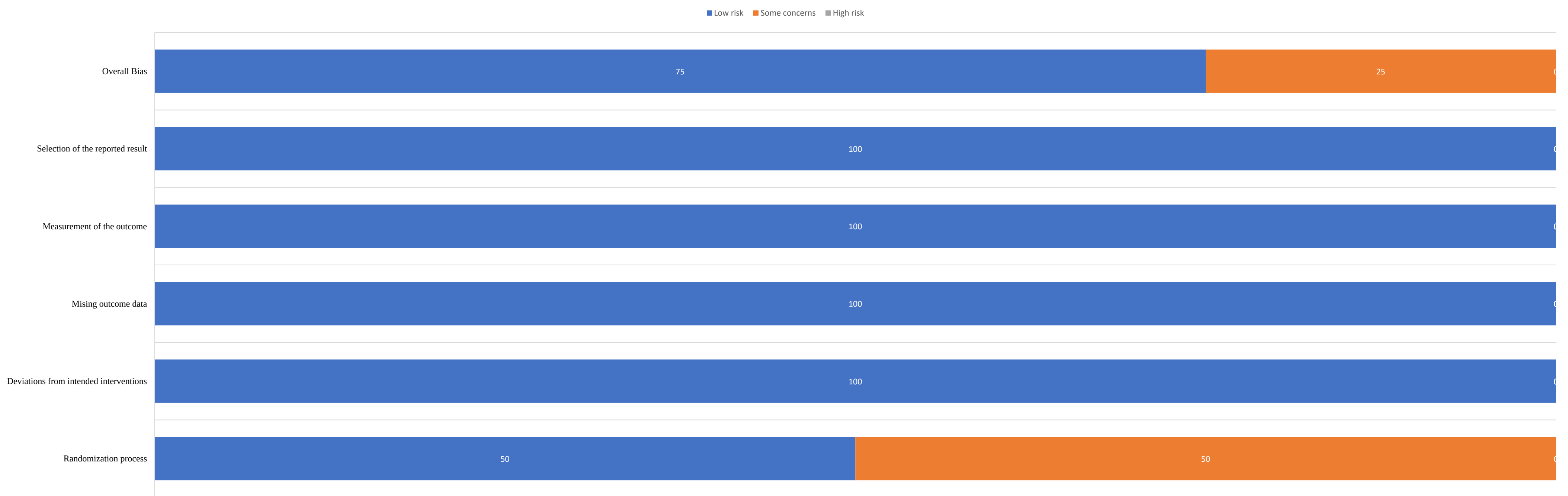
PRISMA Flow Diagram:



Risk of Bias Summary Table: Assessment of Bias Across Outcomes for Various Domains

Outcome	Weight	D1	D2	D3	D4	D5	Overall	
perceived benefits, p1		+	!	+	+	!	!	Low risk
effects of oral health 1		!	!	+	+	!	+	Some concerns
self-efficacy, oral hea1		+	+	+	+	+	+	High risk
scores of beliefs,beh 1		-	!	!	!	!	-	D4 Measurement of the outcome
effect of knowledge, i1		+	+	+	+	+	+	D5 Selection of the reported result
improved their PI, ar 1		+	+	+	!	+	!	
perceived sensitivity 1		!	+	+	!	+	!	
knowledge, perceive 1		+	!	+	!	+	!	

The assessment of the risk of bias using the RoB-2



Conclusion:

This systematic review confirms that education-based oral health interventions during pregnancy can significantly change oral health knowledge, attitudes, and behaviors. However, further research is needed to explore the long-term sustainability of these outcomes and to refine intervention strategies for greater efficacy across diverse populations.