WHICH POLICIES AND INTERVENTIONS WORK TO INFLUENCE THE SCHOOL FOOD ENVIRONMENT? A SYSTEMATIC REVIEW

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BACKGROUND

Objectives: To assess the effects of implementing policies and interventions that influence the school food environment on children’s health and non-health outcomes, to inform a WHO guideline on school food and nutrition policies.

METHODS

1. Eligibility criteria were developed and validated by a multi-disciplinary team.
2. Search strategy: Studies were identified through searches of multiple databases, reference lists of included studies, and contacts with experts.
3. Study selection: Studies were screened for eligibility using a prespecified protocol.
4. Data extraction and quality assessment: Data were extracted and quality assessed using standardized tools.
5. GRADE assessment: The certainty of the evidence was assessed using the GRADE approach.

DATA COLLECTION AND ANALYSIS

1. Two authors independently screened the titles and abstracts of potentially eligible full-text records, resolved disagreements in two rounds.
2. Data extraction was done in duplicate by two reviewers and checked by another.

SEARCH RESULTS

1. The full-text search strategy was a combination of keywords and MeSH terms. The search was conducted in multiple databases.
2. A total of 28,242 records were identified through database searching. After record screening, 17,706 records were excluded, leaving 10,536 records for further assessment.
3. After full-text screening, 74 unique studies were included in the review.

EFFECTS OF INTERVENTIONS

1. Nutrition standards increasing the availability of healthy foods in schools (3 cluster RCTs, 5 ITS studies, 1 PCS)
   - may increase the consumption of healthy foods and beverages
   - may increase the consumption of unhealthy foods and beverages (low certainty evidence)
   - may increase intake of healthy foods (low certainty evidence)

2. Nudging interventions
   - may increase intake of healthy foods (low certainty evidence)
   - may increase intake of unhealthy foods (low certainty evidence)

3. Food provision
   - may increase intake of healthy foods (low certainty evidence)
   - may increase intake of unhealthy foods (low certainty evidence)

CONCLUSION

The body of evidence indicates that interventions that address the school food environment may have modest beneficial effects on certain key outcomes. Implementation of these interventions should consider the local context and factors that would enable or limit implementation.

ADVOCACY MESSAGE

A number of school food interventions have been evaluated and can positively impact the key outcomes in children. Implementation of these interventions should consider the evidence from this systematic review alongside local context and factors that would enable or limit implementation.

KEY

1. Strong evidence
2. Moderate evidence
3. Low evidence
4. Very low evidence

NOTES

1. Each bar represents one study.
2. The number of subjects for any given study is indicated in the number of stars by the fill.
3. The grey shading indicates the certainty of the evidence.

REFERENCES