

ABSTRAK

Latar Belakang: Sisa makanan (*food waste*) menyebabkan masalah global pada lingkungan, ekonomi, dan ketahanan pangan. Institusi menyumbang 11% sampah makanan di dunia, salah satunya sekolah (FWRA, 2014). Anak sekolah dasar sering menyisakan makanan siang yang memengaruhi kecukupan asupan gizi dan kesehatannya. Edukasi gizi di sekolah berperan meningkatkan kesadaran dan pengetahuan anak. **Metode:** Studi pendekatan *systematic review* dan meta-analisis dengan pedoman PRISMA 2020. Data dari *database* PubMed, Scopus, Web of Science, dan *grey literatur* Google Scholar. Peneliti melakukan pencarian metode *snowball*. Studi meliputi *Randomized Control Trial* atau kuasi-eksperimental yang membahas intervensi edukasi gizi terhadap sisa makanan di sekolah dasar. Penentuan kualitas studi dengan JBI. Analisis meta menggunakan R-Studio. **Hasil:** Artikel diperoleh 1130, setelah dicek duplikasi, skrining judul, abstrak, kemudian *full text* diperoleh 7 artikel. Tujuh dianalisis sistematis dan tiga meta analisis. Studi menunjukkan hasil signifikan edukasi gizi mengurangi sisa makanan secara signifikan, satu studi tidak signifikan, dan tiga studi lain tidak menampilkan hasil signifikansinya. Meta-analisis menunjukkan edukasi gizi signifikan ($p < 0,05$) menurunkan sisa makan siang anak sekolah dasar -19,61 gram dengan 95% CI: -35.68 hingga -3.54; $p = 0.0302$. **Kesimpulan:** Intervensi edukasi gizi efektif mengurangi sisa makan siang anak sekolah dasar. Hasil ini mendukung implementasi program edukasi gizi di sekolah dengan mempertimbangkan metode, media, durasi, dan frekuensi.

Kata Kunci: Sisa makanan, edukasi gizi, anak sekolah dasar, *systematic review*, meta-analisis

ABSTRACT

Background: Food waste has become one of the major global issues affecting the environment, economy, and food security. Institutions, including schools, contribute to 11% of global food waste (FWRA, 2014). Elementary school children often leave food uneaten at lunch, which impacts their nutritional intake and overall health. Nutrition education in schools plays a vital role in increasing children's awareness of healthy eating. **Methods:** This study employed a systematic review and meta-analysis approach guided by the PRISMA 2020 framework. Data were sourced from PubMed, Scopus, Web of Science, and the grey literature in Google Scholar. A snowballing search strategy was also applied. Included studies were randomized controlled trials or quasi-experimental studies focusing on the impact of nutrition education interventions on lunch waste among elementary school children. Study quality was assessed using the JBI Critical Appraisal Tool. Meta-analysis was conducted using R-Studio. **Results:** A total of 1,130 articles were identified. After removing duplicates and screening titles, abstracts, and full texts, seven articles were included. All seven studies were reviewed systematically, and three were included in the meta-analysis. Most studies reported a significant reduction in food waste following nutrition education, while one study showed no significant effect, and three did not report statistical significance. Meta-analysis showed nutrition education significantly reduced lunch waste by -19.61 grams (95% CI: -35.68 to -3.54; $p = 0.0302$). **Conclusion:** Nutrition education interventions are effective in reducing lunch waste among elementary school children. These findings support the implementation of school-based nutrition programs that consider appropriate methods, media, duration, and frequency.

Keywords: food waste, nutrition education, elementary school children, systematic review, meta-analysis