

A systematic review of the nutritional status of children living within institutionalized care

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Context and Objectives

There are an estimated 2.7 million children living within institutionalized care worldwide. This review aimed to evaluate currently available data on the nutrition status of children living within institutionalized care.

Methods

We searched four databases (Pubmed/Medline, CINAHL Plus, Embase and Global Health Database) for relevant articles published from January 1990 to February 2019. Studies that included information on anthropometry or micronutrient status of children living within institutionalized care were eligible for inclusion. The review is registered on PROSPERO: CRD42019117103.

Results

We screened 3,602 titles screened and reviewed 98 full texts. We found 25 eligible papers. Two (8%) studies reported data from multiple countries, nine (36%) were from Asia, four (16%) from Africa, three (12%) from Eastern Europe, four (16%) from the European Union and one (4%) from each of the remaining regions (Middle East, South America and the Caribbean). Twenty-two (88%) of the studies were cross sectional. Ten (40%) of the studies focused on children >5 years, seven (28%) on children <5 years, seven (28%) covered a wide age range and one did not include ages.

Low birth weight ranged from 25 to 39%. Only five (20%) included information on children with disabilities reporting prevalence from 8 to 70%. Prevalence of undernutrition varied between ages, sites and countries: stunting ranged from 9 to 72%; wasting from 0 to 27%; underweight from 7 to 79%; low BMI from 5 to 27%. Overweight/obesity ranged from 10 to 32% and small head circumference from 17 to 41%. The prevalence of HIV was between 2 to 23% and anemia from 3 to 90%. Skin conditions or infections ranged between 10 to 31% and parasites between 6 and 76%. Half the studies with dietary information found inadequate intake or diet diversity. Institution-based children were more malnourished than community peers, although community children were also often below growth standards. Younger children were more malnourished than older children. High risk of bias was found in the studies.

Conclusions

Addressing the nutrition needs of this underrepresented vulnerable population of children is important in the fight against undernutrition worldwide. Prevention and treatment of poor nutrition in this population can have far reaching impacts but there is a very limited amount of research on the nutrition status of this population.

Our review found children living within institutionalized care were commonly malnourished; affected by undernutrition, overweight and micronutrient deficiencies. Few of the studies described disabilities, despite disabilities being common in this population and having a big potential impact on nutritional status. Together, these findings suggest a need for greater focus prevention and treatment of malnutrition in this population, especially focusing on younger children and children with disabilities.

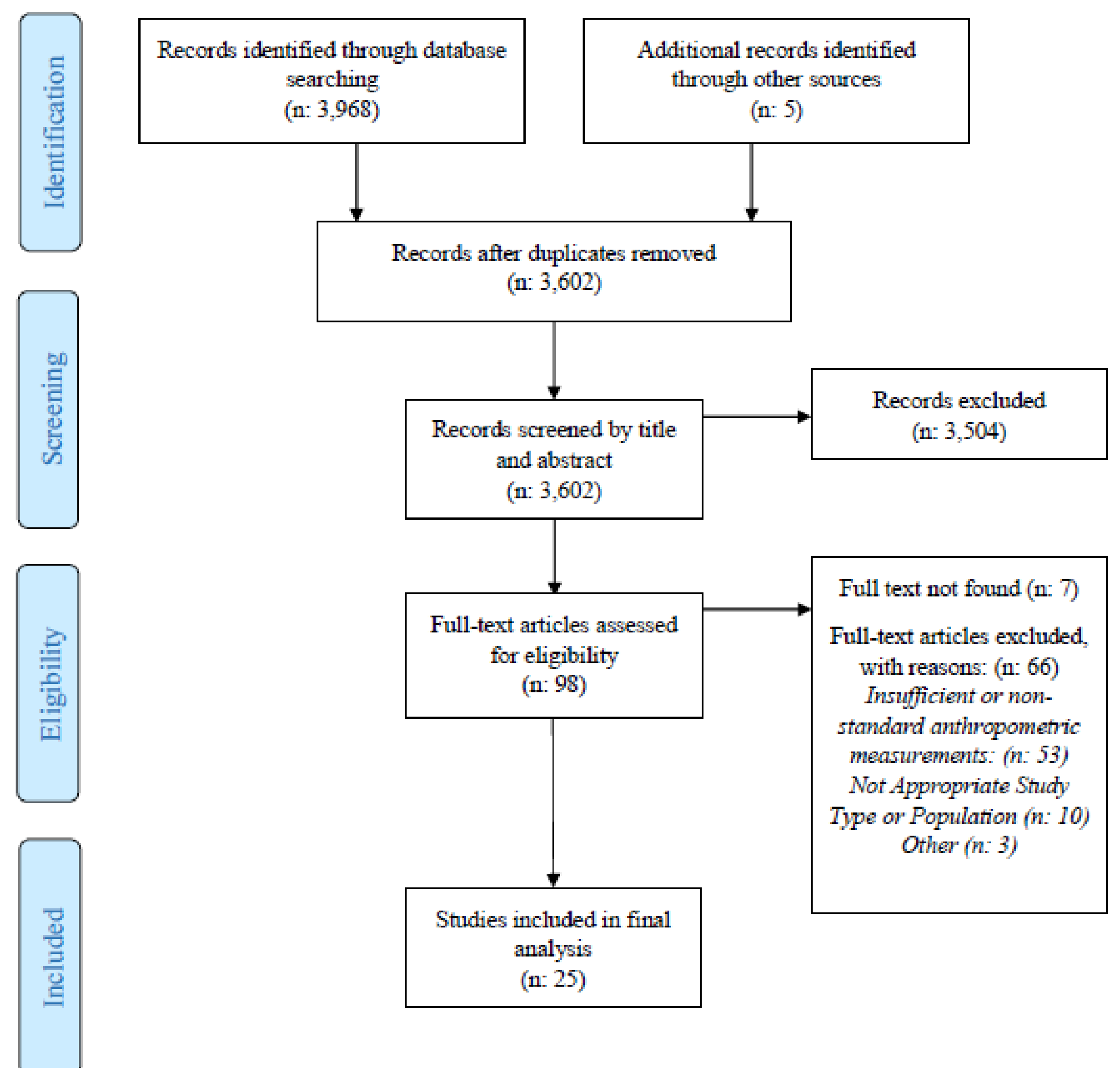
More information about children's nutrition status is needed to support the more than two million of children living within institutionalized care to fully address their rights and need for healthy development.

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Figure 1. Search Results (adapted from PRISMA 2009 Flow Diagram)



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Competing Interests

None

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