Anaemia in Children and Adolescents: A Bibliometric Analysis of BRICS Countries (1990–2020)

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Background

Prioritized cooperation regarding health, including malnutrition

Women of Reproductive age (WRA)
- Nutritional deficiencies (especially Iron)
- Menstrualy losses
- Malaria
- Multiple pregnancies/ short birth spacing
- Helminthiasis

Children
- Nutritional deficiencies
- Rapid growth
- Maternal anemia
- Malaria
- Helminsthiasis
- Hemoglobin disorders

Adolescents
- Nutritional deficiencies (especially Iron)
- Menstrualy losses (in girls)
- Overweight & obesity
- Malaria
- Helminthiasis
- Chronic Diseases

Others
- Intestinal disorders affects absorption of nutrients
- Long term or serious illness such as AIDS, diabetes, cancer, kidney disease, rheumatoid arthritis and liver disease
- Blood loss from surgery or injury
- Nutritional deficiencies (especially Iron)
- Excessive tea or caffeine drinking
- Frequent blood donation

Methods

- Bibliometric analyses were employed to map scientific publications related to anaemia in children and adolescents in BRICS countries using VOSviewer software.

- Research documents from 1990 to 2020 were imported from PubMed.

- Descriptive statistics was used to analyze trends in research publications, authorship and keywords over the 30-year period.

Results

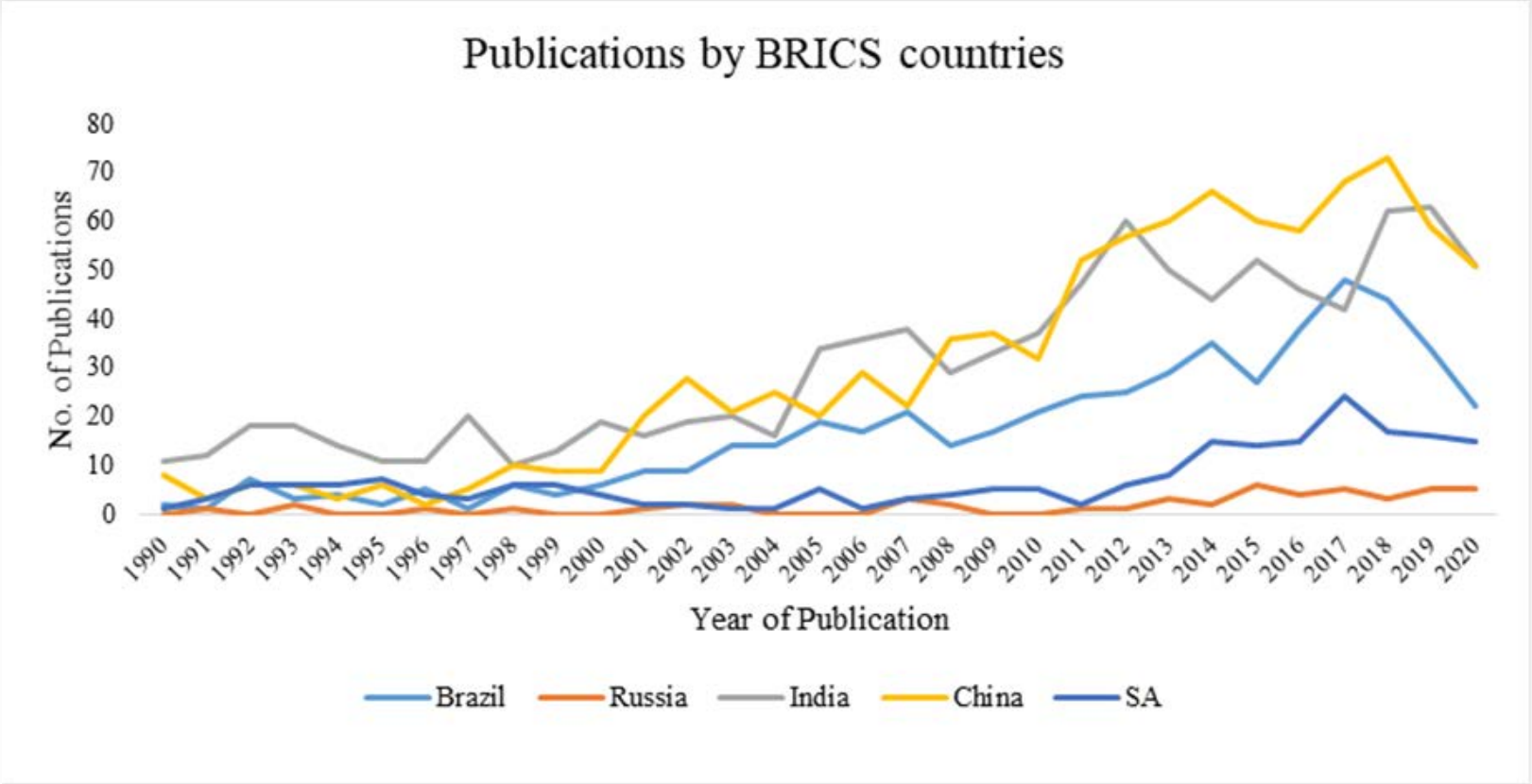


Figure 1. Publication trends by BRICS countries (1990–2020).

Results

Table 1. Ranking of the top ten authors in BRICS countries.

Rank	Author	Country of Origin	Number of Publications	Total Co-Authorship Link
1	Fu, Rong	China	34	56
2	Liu, Hong	China	24	51
3	Shao, Zong-Hong	China	20	40
4	Shi, Jun	China	27	33
5	Zheng, Yizhou	China	20	12
6	Choudry, VP	India	18	4
7	Saxena, Renu	India	20	3
8	Chandra, Jagdish	India	23	1
9	Ghosh, Kanjaksha	India	18	1
10	Bonfim, Carmen	Brazil	18	0

Results

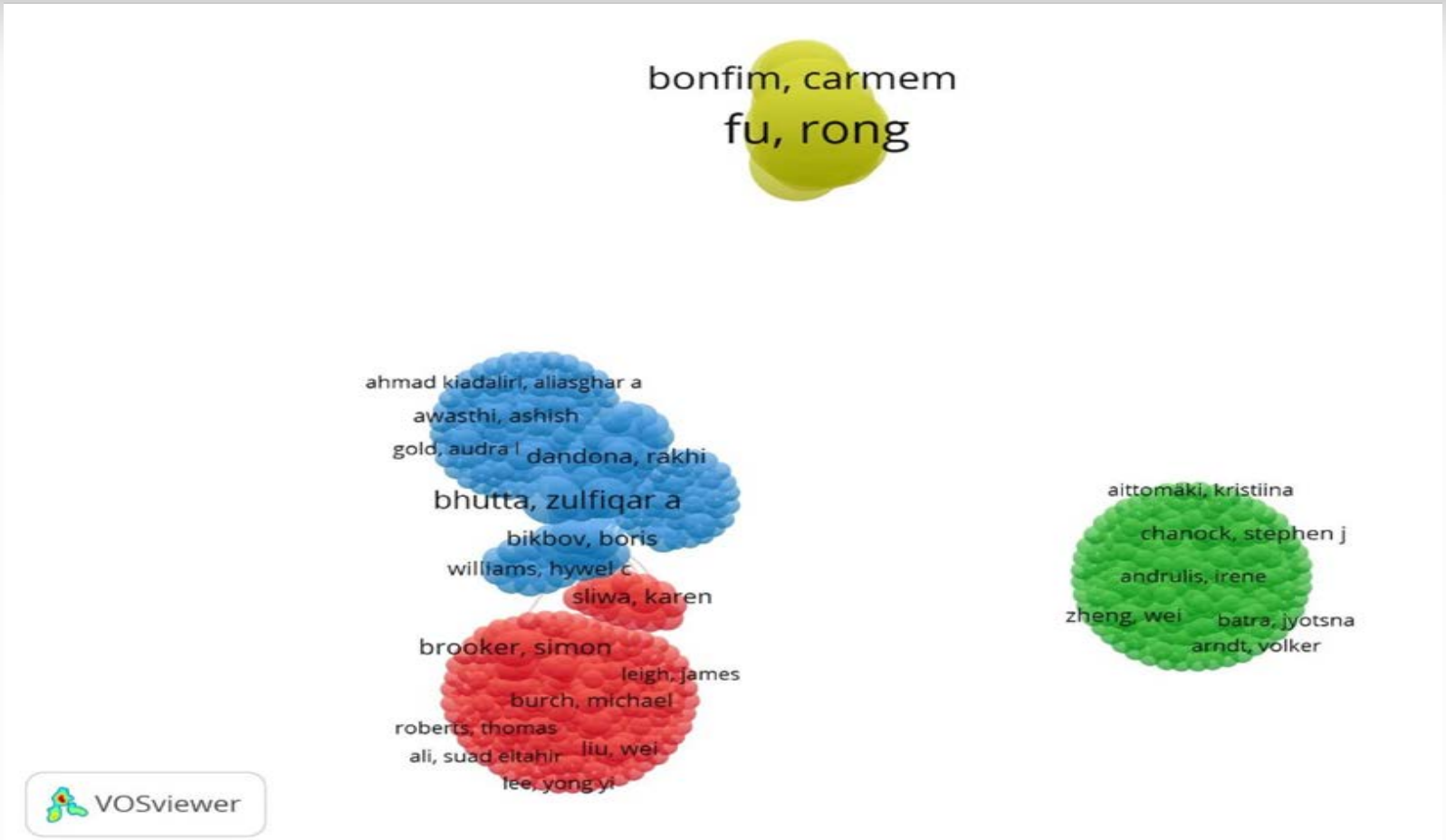


Figure 2. Collaboration networks between BRICS authors.

Results

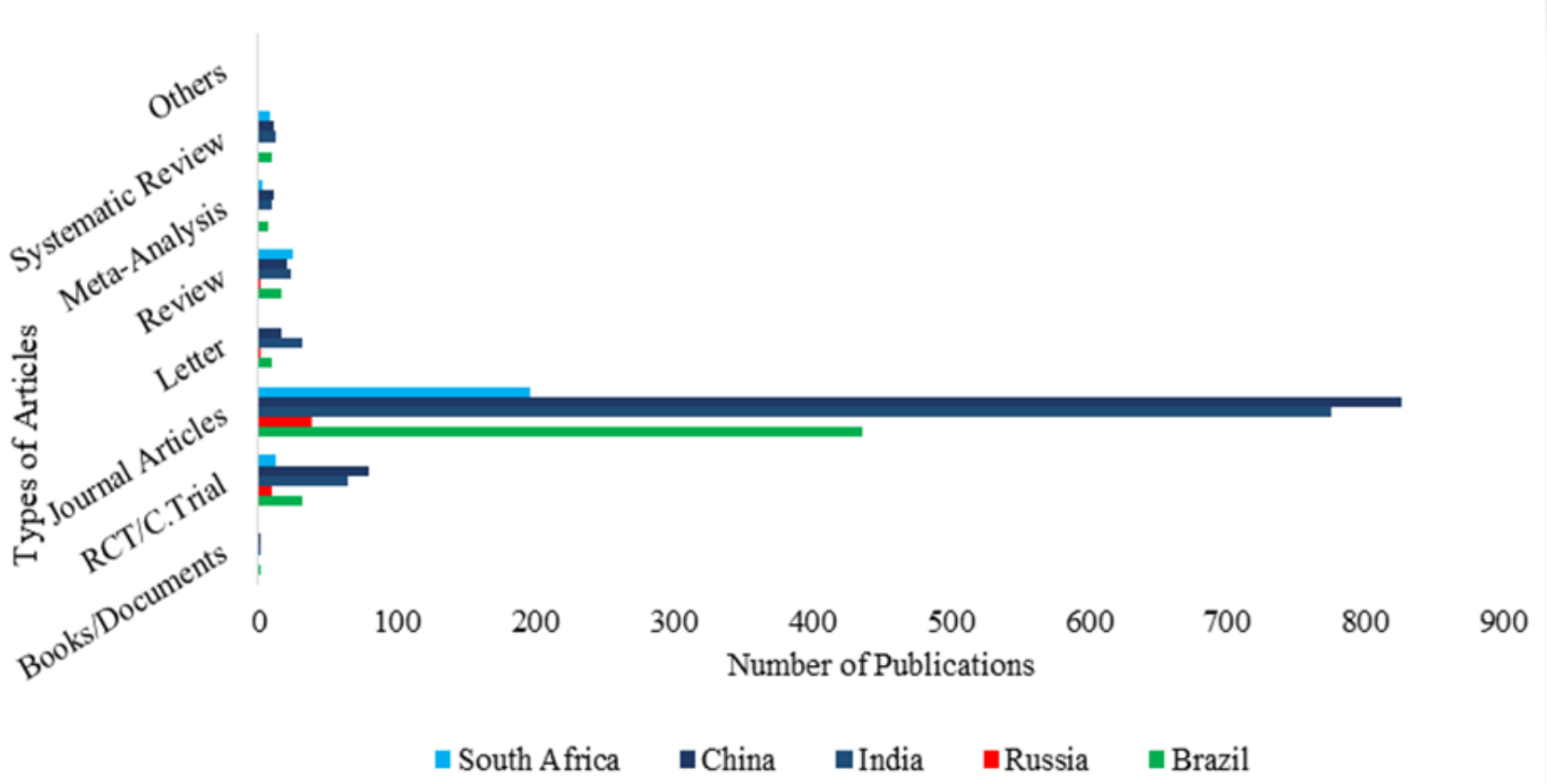
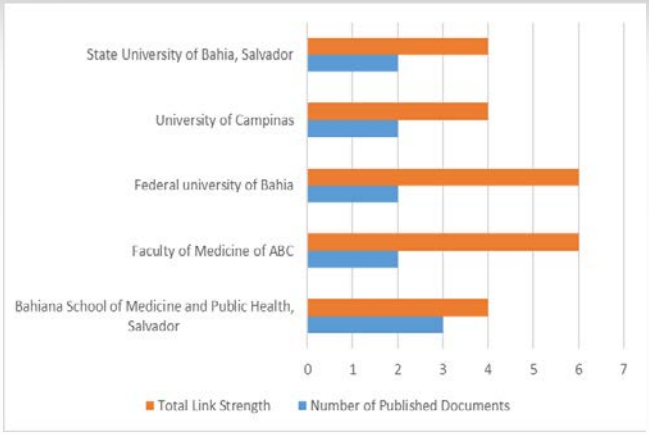
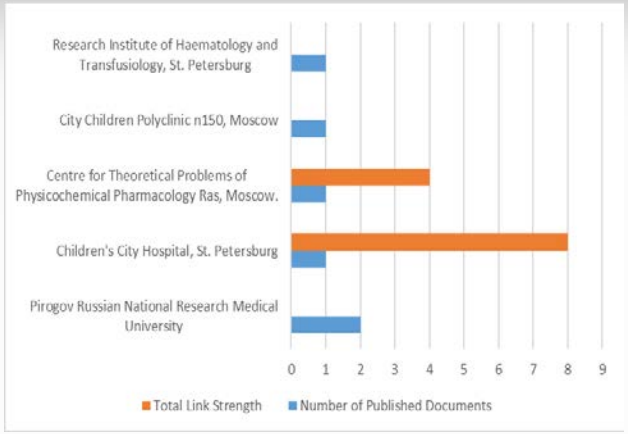
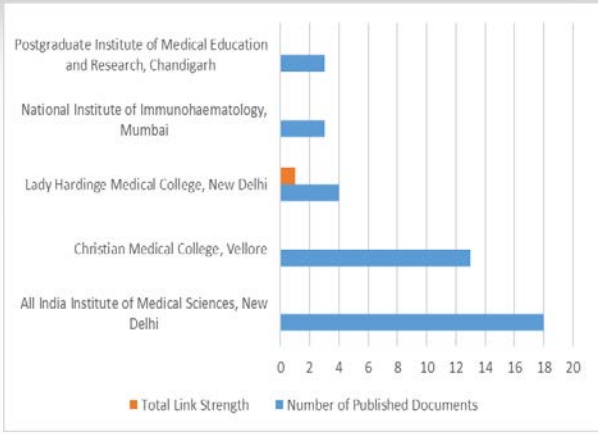


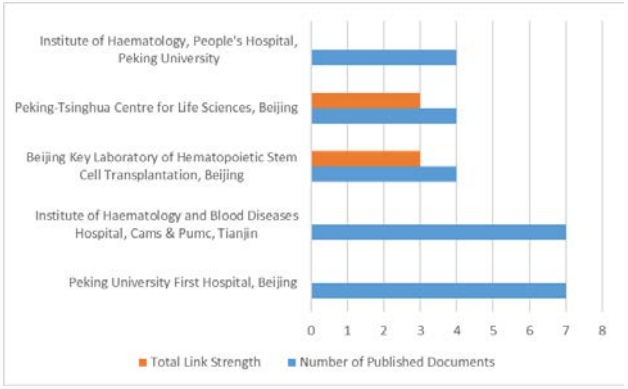
Figure 3. Article types: comparison among BRICS countries.

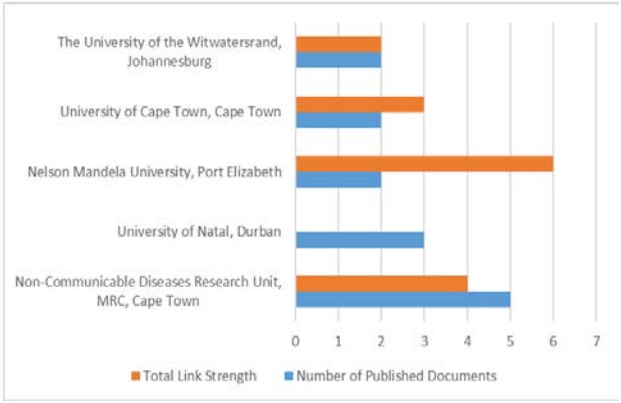
Results











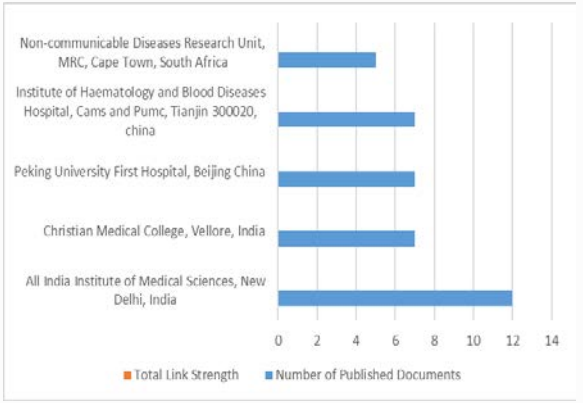


Figure 4. Organizations with highest number of anaemia publications: (a) Brazil, (b) Russia, (c) India, (d) China, (e) South Africa, (f) BRICS.

Conclusion

- The review of all scientific studies on anaemia in BRICS nations for the past 30 years revealed gaps in research collaborations on anaemia between authors in BRICS nations.

- However, collaborative research projects may contribute to building a shared base of evidence, innovations, data and methodologies for a more comprehensive understanding of the risks and vulnerabilities of child and adolescent anaemia.

- This will aid in the development and evaluation of interventions and policies to alleviate anaemia and nutrient deficiencies, possibly bringing us closer to achieving the Sustainable Development Goals (SDGs) and Agenda 2063.

Advocacy message

- There is a need for inter- and multidisciplinary collaborations to address the current practices, gaps, governance, communications, implications for policy, etc., to assist these countries and beyond in developing potential interventions in addressing nutritional challenges, such as anaemia, especially in children and adolescents.

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- Re a leboga
- Ro livhuwa
- Siyabonga
- Siyathokoza
- Thank you