Reading between the lines: Gaps in Health Outcomes as a Result of Varying Health Literacy Levels

A Bibliometric Analysis on the Top 100 Cited Articles on Healthcare Literacy and Health Outcomes

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Introduction

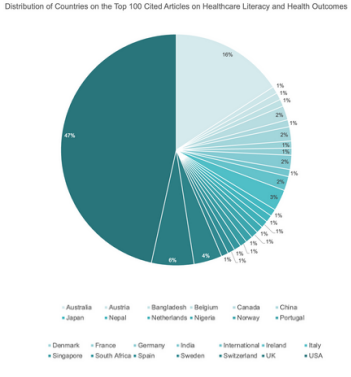
Health literacy denotes the ability to utilize information and services for health-related decision making (CDC, 2023). Consequently, health literacy is vital in facilitating patient comprehension of diagnoses and procedures described by healthcare practitioners. Limited health literacy correlates to adverse patient outcomes, leading to increased hospitalization and mortality rates (Hickey, 2018). Challenges to health literacy include socioeconomic disparities and language barriers. Further investigation is necessary to ascertain the influence of health literacy on health outcomes across demographics.

Objectives

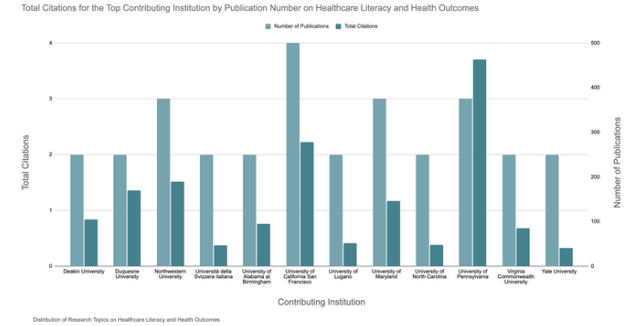
Our aim is to perform bibliometric analysis to identify patterns of research in healthcare literacy and education to discern the effect of healthcare literacy on patient outcomes.

Methods

Using the online database Web of Science, we searched "healthcare literacy and health outcomes." Our search excluded all preprint citation indices, yielding 521 articles. We added the keywords "health outcomes" and excluded document types including "review," "clinical trial," "abstract," "case report," and "meeting" to avoid statistical redundancies. We then manually removed anything previously unfiltered and analyzed the top 100 cited articles.



Topic	Frequency	% of Total
Business	1	0.54
Computer Science	1	0.54
Computer Science, Artificial Intelligence	1	0.54
Computer Science, Interdisciplinary Applications	1	0.54
Criminology & Penology	1	0.54
Dentistry	1	0.54
Economics	1	0.54
Education	1	0.54
Environmental Studies	1	0.54
Experimental Medicine	1	0.54
Genetics & Heredity	1	0.54
Green & Sustainable Science & Technology	1	0.54
Hematology	1	0.54
Infectious Diseases	1	0.54
Information Systems	1	0.54
Legal Medicine	1	0.54
Management	1	0.54
Nutrition and Dietetics	1	0.54
Oral Surgery & Medicine	1	0.54
Peripheral Vascular Disease	1	0.54
Pharmacology & Pharmacy	1	0.54
Primary Health Care	1	0.54
Psychiatry	1	0.54
Public Administration	1	0.54
Public, Environmental, & Occupational Health, Social Sciences - Other topics	1	0.54
Scientific Disciplines	1	0.54
Social Sciences - Other Topics	1	0.54
Virology	1	0.54

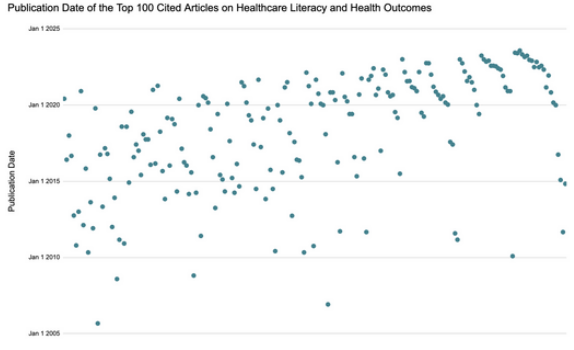


Results & Discussion

From our analysis, we observed 25 different countries and 1 international organization spanning multiple nations. The United States, Australia, and the United Kingdom contributed the most publications with 47, 16, and 6, respectively, constituting over 68% of the literature analyzed, while African and Asian countries only represented about 6%. Additional research is needed from authors representing countries with fewer publications to understand healthcare literacy and how it affects health outcomes. Lower levels of health literacy are correlated with poor health outcomes, especially in the countries where we observe fewer publications, such as Nigeria (de Assis Ferreira Melo et. al, 2020). We identified ~90 contributing institutions/organizations and plotted the top twelve contributors. The University of California San Francisco contributed the most publications at 4, with 278 citations, while the University of Pennsylvania published 3 articles, being cited 463 times. Both institutions have positively impacted health literacy research with a model for future research. Researchers predominantly published articles on topics including, "Public, Environmental, & Occupational Health," and "Health Care Sciences and Services," indicating how research allows better overall comprehension of health literacy and its importance in public health research. We identified an increase in research over time, with 84 articles being published in the 2010s, compared with 13 in the 2000s. This shows promise for future research, as more recent articles are being cited and researchers focus more on the significance of healthcare literacy.

Conclusion

Our bibliometric analysis reaffirms the role of health literacy in determining health outcomes, demonstrating a necessity for addressing disparities in research distributions that inhibit inclusive and globally representative research. The patterns we identified highlight the need for bridging gaps between nations to ensure an equitable understanding of health literacy and related impacts on patient outcomes. Also, these patterns show how more research is being done over time.



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