Cuban scientific publications on Medical research: A Gender focused bibliometric study in main stream
(Web of Science, 2000-2007)

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Methodology

Gender differences in scientific productivity were examined in a sample of 1910 records. Name disambiguation was carried out and author’s names were classified into males and females. 95% of all records under Medicine related categories were normalized. Production, authorship, collaboration and visibility indicators were measured.

Findings

Women participate as authors in 80.15% of the documents, while over 95% of the output has at least one male author.

There is not a significant difference between the medians of male and female production (Kruskal-Wallis, \( p<0.05 \)).

The difference became considerable when exclusive contributions were analyzed. Almost 20% of documents are signed exclusively by men and only 4.52% by women.

In general, we can affirm that there is not a critical gender imbalance. However a detailed analysis by region pointed out that:

- More females than males can be found in regions A and B, which is contrary to the situation of gender presence in region D.
- While the male presence prevails in C, females have high betweenness degrees; it means that women have more important structural positions than men.

The females need to improve their participation by at least 8%. Despite this imbalance, such differences result as being smaller than those reported in Cuba by other areas like Technical, Engineering or Exact Sciences.

The increase of coauthorship index appears with a decrease of female presence by document.

In impact (expected or real), there aren’t significant differences between at least one female, at least one male and only male cohorts (\( p<0.05 \)).

The publications patterns of Cuban authors during 2000-2007 were not affected by gender.

Conclusions

This study confirms the presence of significant differences in productivity between men and women when they don’t practice intergender collaboration. Negative effects on productivity and visibility are stronger for females than males when they publish in groups where colleagues have the same sex (Kruskal-Wallis, \( p<0.00.05 \)).

Results reject the underlying assumption of difference model about productivity and impact.