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Relationship between reading habits and interest in scientific production among medical students at the University of Santo Amaro

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ABSTRACT

OBJECTIVE

The aim of this study was to describe reading habits and their impact on scientific production medical students at Santo Amaro University (UNISA).

METHODS

This is a descriptive and quantitative study, carried out by collecting responses to a structured questionnaire, with closed, multiple-choice questions, grouped into thematic blocks, which was completed online by participants over 18

years of age.

RESULTS AND DISCUSSION

Among the 135 students who participated in the study, the majority were women (73.3%) between 18 and 23 yearsof age, all studying medicine. Of the total, 70.4% had already conducted at least one research project, generally 1-2, with 57.9% of these having a reading habit, compared to 47.5% among those without scientific experience. Female engagement was remarkable: 71.7% of women had already conducted research, and all reported reading habits. This study associates reading habits with greater involvement in scientific research, especially among women, who demonstrate higher rates of reading and participation in academic research. Among men, only half of those with research experience reported reading habits, suggesting the influence of this factor on scientific engagement.

CONCLUSION

Although causality cannot be established and there are limitations such as low response rates and the absence of students from other health areas, the results reinforce that encouraging reading can favor academic performance and strengthen scientific production.

KEYWORDS

Academic research; Medical students; Scientific production.

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INTRODUCTION

The act of reading is an action that excites almost all regions of the brain,[1] making it of extreme importance for neurological development in preschool-aged children.[2] Among children who have a reading habit, there is a lower neurite density, which forms a less complex dendritic network, yet one with greater effectiveness.[3] In this way,
reading aids neurological development; it is also used for the treatment and prevention of dementias, as it is considered a cognitive training activity.[4]

Graham et al. (2017)[5] published the results of an analysis of experiments conducted between 1983 and 2016, involving over 5,000 students from the United States, Canada, the United Kingdom, and Europe. This meta-analysis showed that reading strengthens and improves writing, resulting in statistically significant effects on aspects such as spelling and word count.

The highest levels of learning are achieved by students who reported reading more than 100 pages, who also happen to be those with better reading habits. In contrast, 95% of those who stated that the longest text they had read was one page or less did not reach the same levels.[6]

In Brazil, a slight growth in reading performance has been observed since the 2000s.[7] However, even in the face of falling global averages in this area,[8] the country still presents scores below the average of the Organization for Economic Co-operation and Development (OECD) countries.[8] Furthermore, it records a smaller proportion of students at the highest proficiency levels[6] and fewer students reaching the minimum expected level (level 2 or higher) when compared to these international averages.[7]

However, reading is not only important for improving reading proficiency, but also for achieving better learning outcomes in general. Its impact is noted in the improvement of indicators that are fundamental for a country's development, even though it is not significantly present in the daily routines of many Brazilian students.[7]

Consistent with these data, in 2022 Brazil ranked 15th globally in the number of scientific publications produced by universities in the health field; however, it stands in 65th place in the ranking of high-impact scientific productions in its areas and in 587th place when observing the percentage of high-impact publications relative to total publications in the world ranking.[9]

Thus, the present study aimed to describe the reading habits and the impact on scientific production among medical students at the University of Santo Amaro (UNISA), analyzing the frequency and quality of leisure reading.

METHODS

This is a descriptive and quantitative study, conducted through the collection of responses from a structured questionnaire featuring closed-ended, multiple-choice questions grouped into thematic blocks. The questionnaire was completed online by participants aged 18 and over.

The questionnaire was made available to medical students at the University of Santo Amaro (UNISA) enrolled between the 4th and 8th semesters. Dissemination was carried out through social media and the educational institution's internal communication system. Participation took place via the Google Forms platform; the questionnaire was administered only once, with a direct link to the questions hosted on the Google Docs platform.

Participation in the research was voluntary and optional, subject to the participant's free and informed consent, such that participants only gained access to the questionnaire if they agreed to the terms. The study was approved by the Research Ethics Committee of the University of Santo Amaro (CAAE: 80854324.5.0000.0081).

Data were tabulated and analyzed in an Excel® spreadsheet, based on the relationship between reading habits and the following variables: sex and scientific research experience.

RESULTS

The study included 135 participants, of whom 99/135 (73.3%) were women, 35/135 (25.9%) were men, and 1/135 (0.7%) preferred not to state their sex. The participants' ages were as follows: 104/135 (77%) were between 18-23 years old; 27/135 (20%) were between 24-30 years old; and 4/135 (2.9%) were over 31 years old.

Forty (40) out of 135 (29.6%) participants had never conducted scientific research, and 21/40 (52.5%) among them did not have a reading habit. Ninety-five (95) out of 135 (70.4%) participants had previously conducted scientific research; of these, 40/95 (42.1%) did not have leisure reading habits, as shown in Table 1.

Table 1 - Data on the relationship between scientific research experience and the reading habits of the 135 participants in the present study.

		Reading Habits	
	No. of respondents	Yes	No
Respondents with scientific research experience	95/135 (70.4%)	55/95 (57.9%)	40/95 (42.1%)
Respondents with no prior scientific research experience	40/135	19/40 (47.5%)	21/40 (52.5%)

Source: The authors.

Among the 35 out of 135 (25.9%) male participants who responded to the scientific survey: 11/35 (31.4%) had never conducted any scientific work, and of these, 3/11 (27.3%) had a reading habit; 24/35 (68.6%) had conducted at least one scientific study, and of these, 12/24 (50%) had a reading routine. Of the 99/135 (73.3%) women who responded to the survey: 28/99 (28.3%) had never conducted any scientific work, of whom 15/28 (53.6%) have a reading habit; 71/99 (71.7%) had conducted at least one scientific study, and of these, 71/71 (100%) had a reading routine, as shown in Table 2.

Table 2 - Data on the relationship between scientific research experience and reading habits according to the sex of the 135 participants in the present study.

		Reading Habits	
	No. of respondents	Yes	No
Respondents with scientific research experience	95/135 (70.4%)	55/95 (57.9%)	40/95 (42.1%)
Respondents with no prior scientific research experience	40/135	19/40 (47.5%)	21/40 (52.5%)

Source: The authors.

DISCUSSION

The present study sought to describe reading habits and scientific production among undergraduate medical students, revealing that more than half of the students with research experience had a reading habit, while this proportion was lower among those without scientific experience. These findings suggest that reading may be associated with greater engagement and performance in complex academic activities.[10]

A meta-analysis conducted by Mol and Bus (2011),[11] involving more than 5,000 students across North America and Europe, demonstrated that frequent reading is strongly linked to improved writing skills. These results align with our observation that students with reading habits appear to have greater involvement in scientific production.

However, the proportion of Brazilian students reporting leisure reading remains low, following the national trend identified by PISA (2022),[8] which shows the country still below the OECD average (2022)[8] in reading performance and with a smaller proportion of students reaching the highest levels of learning.

Another relevant point is the gender difference. In the present study, women represented the majority of participants with research experience and were also those who most frequently reported a reading habit. This aligns with Nonte, Hartwich, and Willems (2018)[12] and Abdul Jabbar (2022)[13], who indicate that girls and women show greater engagement in reading practices; this possibly contributes to their higher representation in academic activities that require critical reading and writing, as observed in this study. On the other hand, among men who reported research experience, only half declared a reading habit, suggesting a possible influence of this factor on the quality or continuity of scientific engagement.

It is important to emphasize that, although our fin-

dings suggest an association between reading and research involvement, it is not possible to establish a causal relationship. Furthermore, there is a limitation in the present study due to the low participation rate, the evaluation of only one undergraduate healthcare program, and the risk of response bias, as engagement may have primarily come from students already interested in research and reading.

CONCLUSION

Despite these limitations, the results of this study suggest that encouraging reading, especially for leisure, can have a positive impact not only on reading and writing performance but also on the scientific and social development that is so crucial for future healthcare professionals. Thus, institutional strategies that promote reading among university students may indirectly contribute to strengthening scientific production an area that still faces a significant gap in Brazil.

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