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Knowledge On How To Read An Article - A Cross Sectional Survey Among Undergraduates

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ABSTRACT

Background: An article is a written work published in a print or electronic medium. It can contain photographs, accounts, statistics, graphs, recollections, interviews, polls, debates on the topic, etc.
Aim: The aim of the study is to evaluate the knowledge about how to read an article among undergraduates.
Materials and methods: This study is a questionnaire based survey to evaluate the knowledge about how to read an article among undergraduates. About 102 responses were obtained from the given questionnaire. The data collected through google forms and analysed using SPSS software version 23. The responses were tabulated in the form of pie charts and bar charts.
Results: It was observed that the majority of students who responded were from first year (48.04%), pursued by their second (35.29 %), third (10.78 %), and fourth year (5.88 %) . This study found that 6.74% of second-year students were aware of how to read an article, followed by 2.61% of third-year students, 2.07% of first-year students, 1.74% of fourth- year students. Pearson

chi-square test was done between association between the year of study and response on how often they read an article and p value is 0.015 and hence it is significant.

Conclusion: It was observed that second years were more into reading an article and also had better knowledge and information about how to read an article when compared to the group of other year students. The survey can be conducted in offline mode rather than online so that the knowledge of the subjects could be analysed accurately.

Keywords: article, knowledge, survey, reading, analysis

INTRODUCTION

An article is a written work published in a print or electronic medium. It may be for the purpose of propagating news, research results, academic analysis, or debate. A news article discusses current or recent news of either general interest or of a specific topic. A news article can include accounts of eyewitnesses to the happening event (1). It can contain photographs, accounts, statistics, graphs, recollections, interviews, polls, debates on the topic, etc. Headlines can be used to focus the reader's attention on a particular part of the article. Quoted references can also be helpful (2).

References to people can also be made through the written accounts of interviews and debates confirming the factuality of the writer's information and the reliability of his source. The writer can use redirection to ensure that the reader keeps reading the article and to draw her attention to other articles. For example, phrases like redirect the reader to a page where the article is continued. Questions are asked to test the knowledge of the dental students.Academic paper is an article published in an academic journal. The status of academics is often dependent both on how many articles they have had published and on the number of times that their articles are cited by authors of other articles. A paper may undergo a series of reviews, revisions, and re-submissions before finally being accepted or rejected for publication. This process typically takes several months. Next, there is often a delay of many months before an accepted manuscript appears (3)(4). This is particularly true for the most popular journals where the number of accepted articles often outnumbers the space for printing (5). It has become essential for clinicians, researchers, and students to read articles from scientific journals. This is not only to keep abreast of progress in the speciality concerned but also to be aware of current trends in providing optimum healthcare to the patients (6).

In spite of the internet rapidly gaining a strong foothold as a quick source of obtaining information, reading journal articles, whether from print or electronic media, still remains the most common way of acquiring new information for most of us. Learning to efficiently read a paper is a critical but rarely taught skill. Beginning graduate students, therefore, must learn on their own using trial and error. Students waste much effort in the process and are frequently driven to frustration (7). Reading a single paper may take you a very long time at first, but be patient with yourself. The process will go much faster as you gain experience. The aim of the study is to evaluate the knowledge about how to read an article among undergraduates.

MATERIALS AND METHODS

This cross-sectional study was conducted in a private medical college among undergraduates in chennai, from January 2021 to February 2021. In our study, 102 participants were included in this study. The participants were among first year, second year, third year and fourth year. A set of questionnaires was circulated among undergraduates through online surveys. Data are presented as mean standard deviation. Categorical variables are expressed as count and percentages. Continuous data were compared by using independent samples using descriptive frequency. Chi square tests were performed to determine significant factors associated with gender and education among undergraduates. Odd ratios (OR) with 95% confidence intervals were used for comparisons. P value of < 0.05 was considered statistically significant.All analyses were performed using the SPSS software version 23.Chi square test was used to analyze and comparative bar graphs were plotted and it is statistically significant only if the p value is less than 0.05

QUESTIONNAIRE

1) Name

2) Age

3) Year of study

4) How often do you read an article?

Everyday

1-2 times a week

Rarely

Never

5) How much time do you spend reading?

Less than 15 mins

1 hour

More than one hour

I don't read

6) What does the title of an article contain?

Overview of the topic

Background of the topic

Explanation of the topic

Information of authors

7) What does the abstract of an article contain?

Documentation

Category

Contribution

Clarity

8) Which is the starting part of an article?

Introduction

Abstract

Results

Aim

9) Which is the challenging part of an article?

Method

Introduction

Abstract

Result

10) Which part of an article explains the main findings?

Result

Discussion

Method

Conclusion

11) Which part explains the statistical analyses of the article?

Method

Aim

Result

Conclusion

12) Is the result the same as the conclusion?

Yes

No

13) Do the results support the hypothesis?

Yes

No

Maybe

RESULT

The present study has observed that out of 102 study participants, 45% were first year, 16% were second year, 16% were third year, 16% were fourth year. **(Figure 1)**. Majority of the population (39.22%) belonged to the age group of 19, 5.88% of the population belonged to the age group of 17, 34.31% of the population belonged to the age group of 18 , 10.78% of the population belonged to the age group of 20 and 9.88% of the population belonged to the age group of 21. **(Figure 2).** Majority of the population (48.04%) belonged to the group of first year, 35.29% of the population belonged to the group of second year, 10.78% of the population belonged to the group of third year, 5.88% of the population belonged to the group of fourth year **(Figure 3).** Majority of the population (63.73%) read an article everyday **(Figure 4).** Majority of the population (40.20%) spend less than 15 mins reading an article **(Figure 5).** Majority of the population (95.10%) were aware that the title of an article contains the overview of the topic. **(Figure 6).** Majority of the population (67.65%) were aware that the abstract of an article contains the documentation **(Figure 7).** Majority of the population (39.22%) were unaware about the starting part of an article **(Figure 8).** Majority of the population (59.80%) were aware that the challenging part of an article is the "Materials and Methods".**(Figure 9).** Majority of the population (72.55%) were aware that the part which explains the main findings is the result. **(Figure 10).** Majority of the population (66.35%) were unaware which part of an article had the statistical analysis **(Figure 11).** Majority of the population (62.75%) have answered the question incorrectly as the yes **(Figure 12).** About 35.29% of the respondents have answered the question correctly as yes. (**Figure 13**). The Pearson chi-square test was used to determine the relationship between year of study and the number of respondents who were aware of how often they read an article and then the percentage was observed and majority were the second years (30.77%) followed by first years (13.46%), third years (5.77%) and fourth years (3.85%) and the p value is 0.015 , ($p < 0.05$) hence it is statistically significant (**Figure 14).** The Pearson chi-square test was used to determine the relationship between year of study and the number of respondents who were aware of how much time they spend reading an article and then the percentage was observed. Majority (22.12%) of the second years spend 15 mins reading an article when compared to first years (13.46%) third years (5.77%) and fourth years (3.85%) and p value is 0.017 and hence it is significant. (**Figure 15).** The Pearson chi-square test was used to determine the relationship between year of study and the number of respondents who were aware of what the title of an article contains and then the percentage was

observed. Majority (39.42%) were the one belonging to second years who have answered the question correctly as the overview of the topic when compared to first years (30.77%), third years (15.38%) and fourth year students (8.65%). Pearson chi-square test was done and p value is 0.012 and hence it is significant.

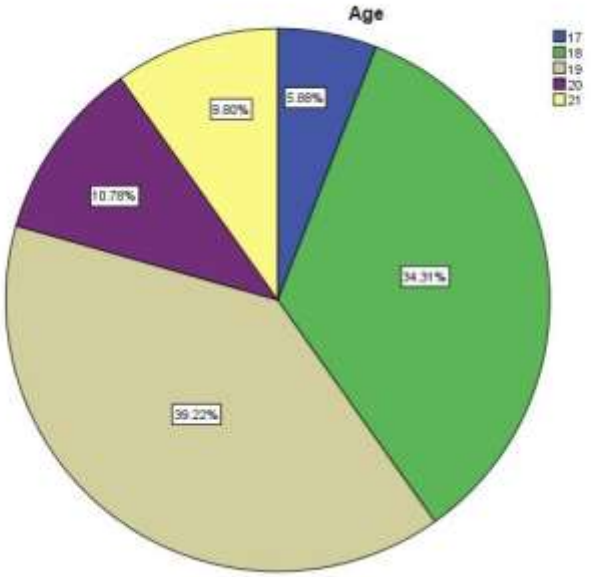

Fig 1. Pie chart shows the percentage of response for age. Blue denotes age group of 17, Green denotes age group of 18, yellow denotes age group of 21, beige denotes age group of 19 and purple denotes age group of 20. Majority of the population (39.22%) belonged to the age group of 19, 5.88% of the population belonged to the age group of 17, 34.31% of the population belonged to the age group of 18 , 10.78% of the population belonged to the age group of 20 and 9.88% of the population belonged to the age group of 21.

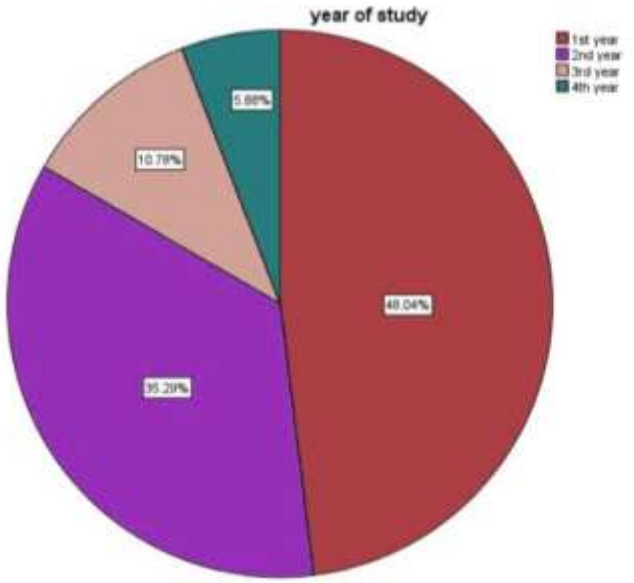

Fig 2. Pie chart shows the percentage of response for years of study. Red denotes group of first year, blue denotes group of second year, pink denotes group of third year and dark blue denotes group of fourth year. Majority of the population (48.04%) belonged to the group of first year, 35.29% of the population belonged to the group of second year, 10.78% of the population belonged to the group of third year , 5.88% of the population belonged to the group of fourth year.

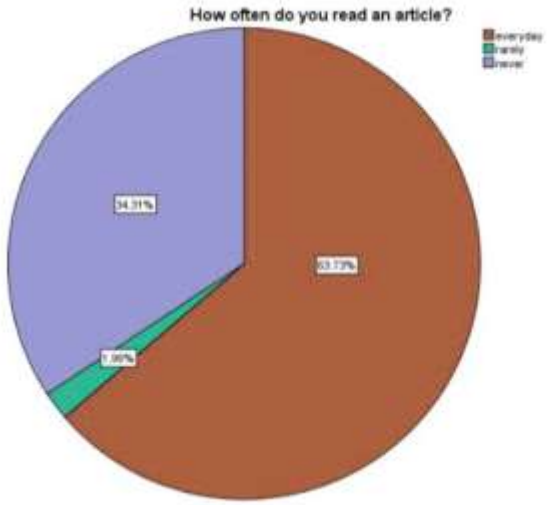

Fig 3. Pie chart shows the percentage of response for how often they read an article. Brown denotes they read an article everyday, blue denotes they rarely read an article, green denotes they never read an article. Majority of the population (63.73%) read an article everyday, 34.31% of the population never read an article, 1.96% of the population read an article rarely.

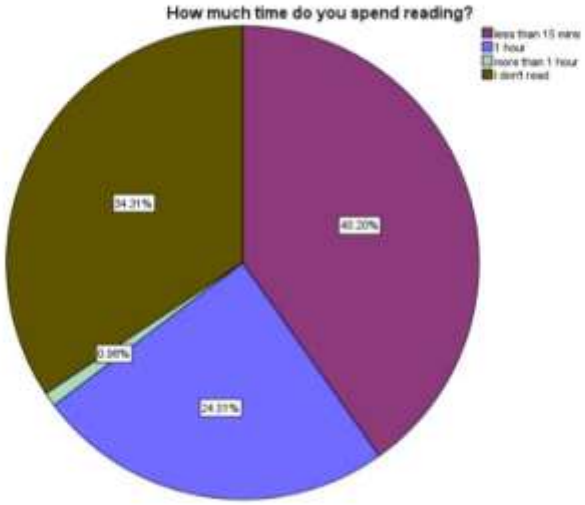

Fig 4. Pie chart shows the percentage of responses for the time they spend reading an article. Purple denotes they spend less than 15 mins to read an article, brown denotes they spend 1 hour to read an article, blue denotes they spend more than 1 hour to read an article and green denotes they don't read an article. Majority of the population (40.20%) spend less than 15 mins reading an article, 34.31% of the population don't read an article, 24.51% of the population spend 1 hour reading an article and about 0.98% of the population spend more than 1 hour reading an article.

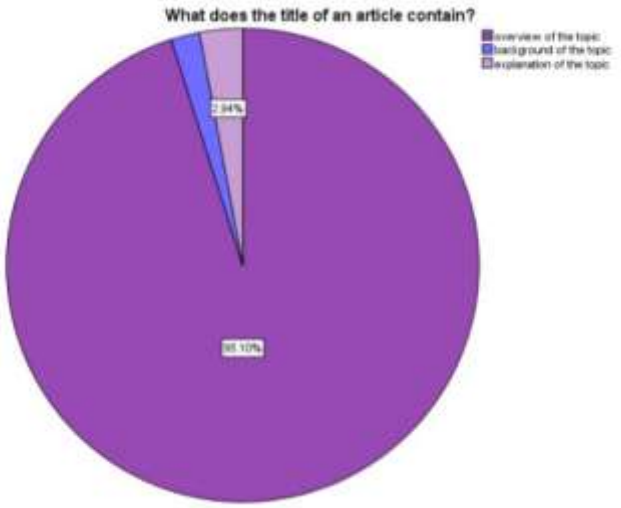

Fig 5. Pie chart shows the percentage of responses for the title of an article. Violet denotes overview of the topic, lavender denotes background of the topic, blue denotes explanation of the topic. Majority of the population (95.10%) were aware that the title of an article contains the overview of the topic, 7.84% (explanation of topic), 2.94% (background of the topic) were aware that the title of an article contains the overview of the topic.

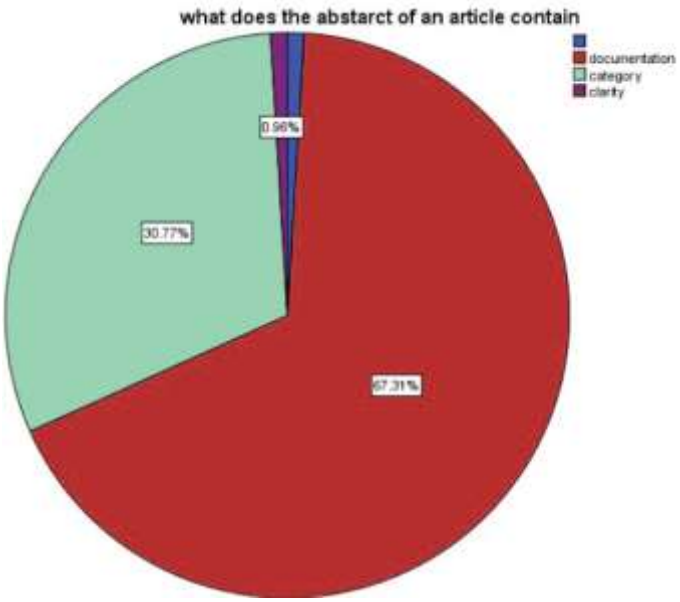

Fig 6. Pie chart shows the percentage of responses for what the abstract of an article contains. Red denotes documentation, Green denotes category, purple denotes clarity. Majority of the population (67.65%) were aware what the abstract of an article contains whereas 31.37% (category) and 0.98% (clarity) were unaware of that the abstract of an article contains the documentation

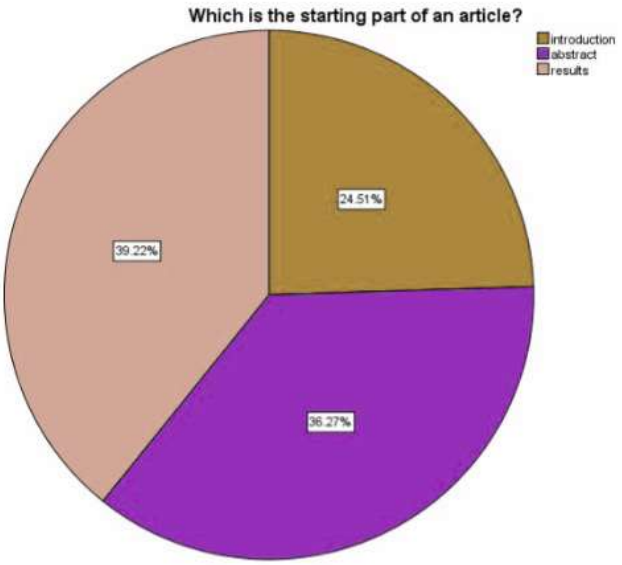

Fig 7. Pie chart shows the percentage of responses for what the starting part of an article is. Pink denotes introduction, purple denotes abstract, violet denotes results. Majority of the population (39.22%) were unaware what the starting part of an article contains and answered the question as the results, 36.27% were aware that the starting part of an article is the abstract and 24.51% (introduction).

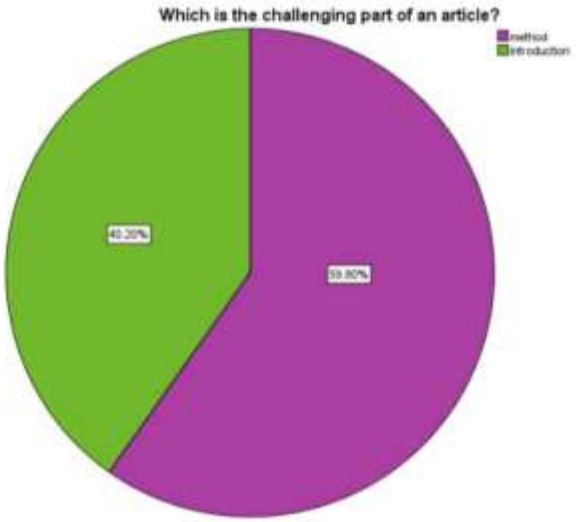

Fig 8. Pie chart shows the percentage of responses for what the challenging part of an article is. Purple denotes method, Green denotes introduction. Majority of the population (59.80%) were aware that the challenging part of an article is the method and 40.20% (introduction) of the population were unaware that the challenging part of an article is the method

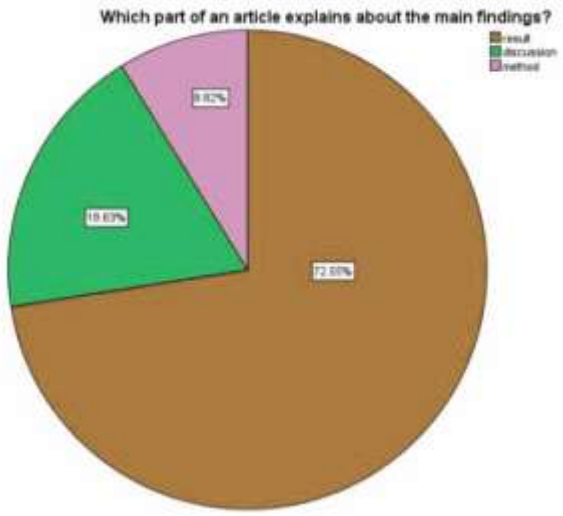

Fig 9. Pie chart shows the percentage of responses for what the main findings of an article is. Brown denotes result, green denotes discussion, pink denotes method. Majority of the population (72.55%) were aware that the part which explains the main findings is the result, 18.63% (discussion) and 8.82% (method) were unaware that the part which explains the main findings is the result.

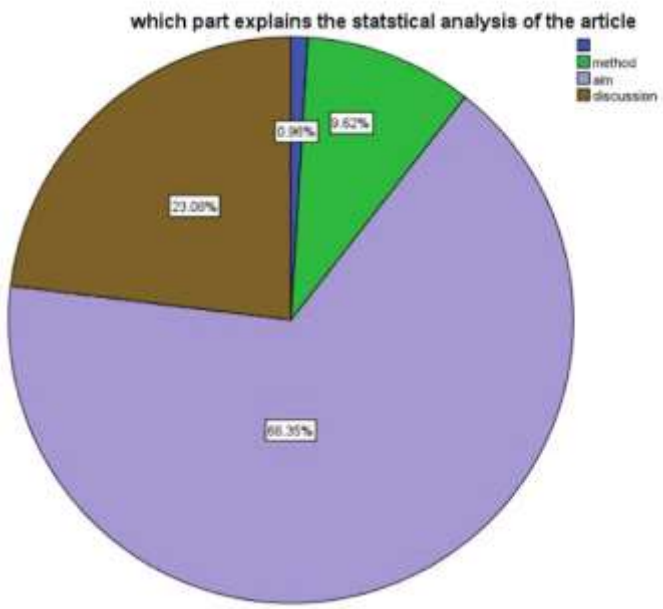

Fig 10. Pie chart shows the percentage of responses for which part explains the statistical analysis of an article: Green denotes method, lavender denotes aim, brown denotes discussion. Majority of the population (66.35%) were unaware which part of an article had the statistical analysis and answered the questions incorrectly as the aim, 23.08% were aware that the part which explains statistical analysis as the discussion and 9.62% were unaware that the part of an article which had the statistical analysis is discussion.

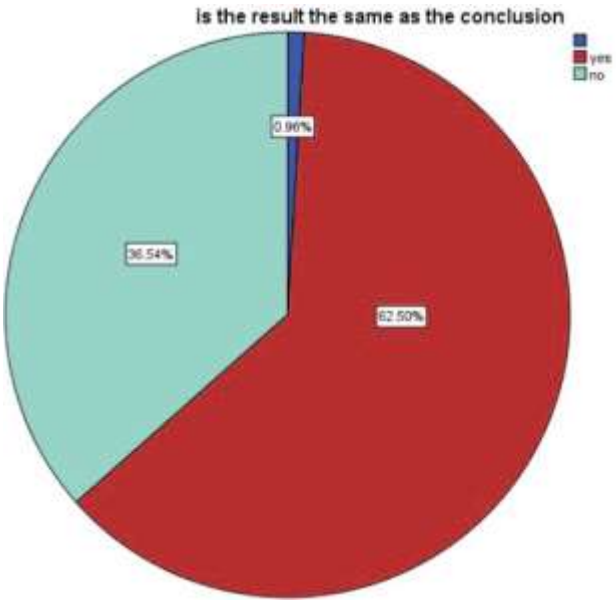

Fig11. Pie chart shows the percentage of responses for whether the result is the same as the conclusion. Red denotes yes, green denotes no. Majority of the population (62.75%) have answered the question incorrectly as the yes, 37.25% of the population have answered the question correctly as no.

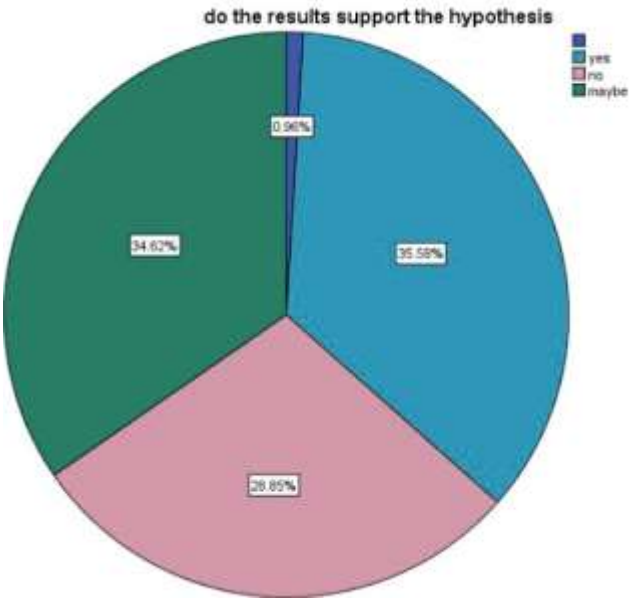

Fig 12. Pie chart shows the percentage of responses for whether the result supports the hypothesis. Blue denotes yes, pink denotes no and green denotes maybe. About 35.29% of the respondents are aware that the results support the hypothesis, whereas 35.29% (maybe) and 29.41% (no) were not aware that the results support the hypothesis.

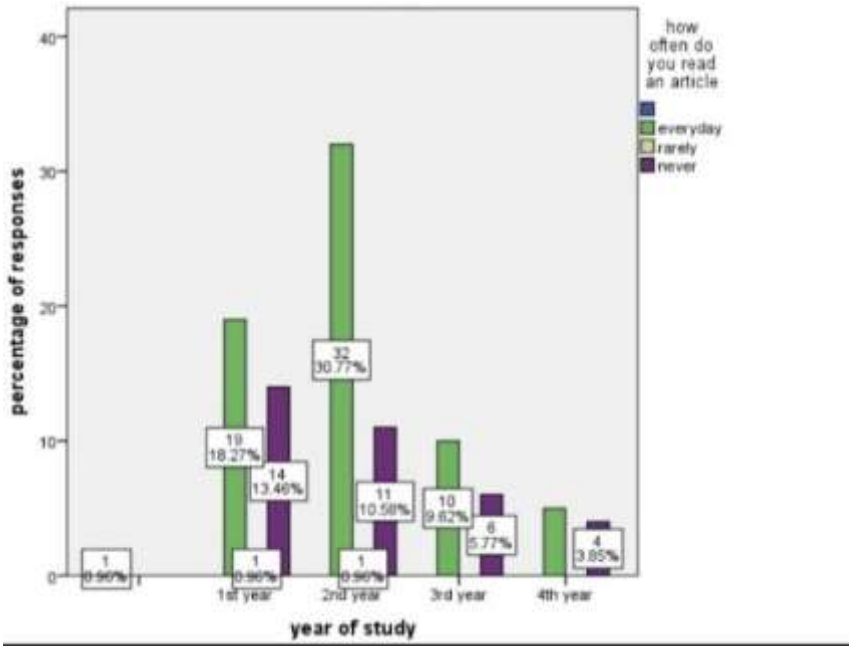

Fig 13. The bar graph represents the association between the year of study and how often they read an article. X axis represents the year of study and Y axis represents the percentage of responses for how often the respondent reads an article. Blue-colour read an article everyday, the beige-colour never read an article and the green-colour rarely read an article.Majority (30.77%) were the second years who read an article everyday when compared to first years (13.46%) third years (5.77%) and fourth years (3.85%). Pearson chi-square test was done and p value is 0.015 and hence it is significant.

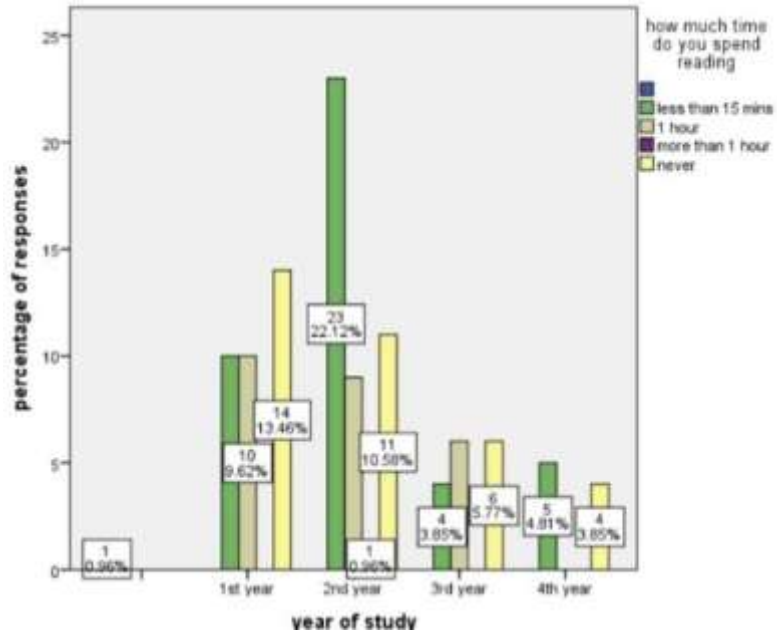

Fig 14. The bar graph represents the association between the year of study and how much time they spend reading an article. X axis represents the year of study and Y axis represents the percentage of responses for how much time the respondent spends to read an article. Green-colour denotes spending less than 15 minutes,beige-colour spend more than one hour , purple-colour don't read an article and the green-colour spend an hour to read an article. Majority (22.12%) were the second years spend 15 mins to read an article when compared to first years (13.46%) third years (5.77%) and fourth years (3.85%).Pearson chi-square test was done and p value is 0.017 and hence it is significant.

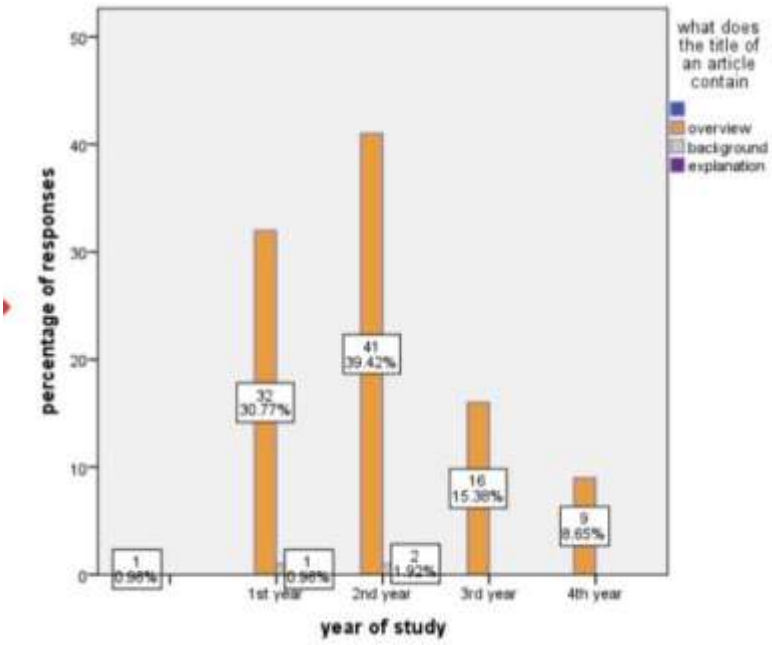

Fig 15. The bar graph represents the association between the year of study and response for "what the title of an article contains". X axis represents the year of study and Y axis represents the percentage of responses for what the title of an article contains. The orange-coloured bar of the bar graph denotes that the respondents of different year groups answering the question as overview of the topic.Majority (39.42%) were the one belonging to second years who have answered the question correctly as overview of the topic when compared to first years (30.77%), third years (15.38%) and fourth year students (8.65%). Pearson chi-square test was done and p value is 0.012 and hence it is significant.

DISCUSSION

In our present study, the majority of students who responded were from first year (48.04%), pursued by their second (35.29 %), third (10.78 %), and fourth year (5.88 %) . This study found that 6.74% of second-year students were aware of how to read an article, followed by 2.61% of third-year students, 2.07% of first-year students, 1.74% of fourth- year students. As a result of the current study, it is evident that second-year students were more aware of how to read an article.

In previous studies, each of the questions in the questionnaire was compared with the age parameter and the results were obtained in the form of bar graphs. This is the most important section of the article where the research questions were answered and the meaning of analysis and interpretation of the data were presented (4,8). Reading scientific literature is a must for students interested in research, for choosing their topics and carrying out their experiments (9). Scientific literature in that field will help one understand what has already been discovered and what questions remain unanswered and thus help in designing one's research project. In previous studies, the researchers suggest people read an article everyday to gain more knowledge. In our study, the respondents from second year read an article everyday but the other respondents do not read an article on a daily basis.

The importance of spending time in studying an article was assessed and the previous study researches suggest for a person to spend at least 30 minutes to read an article in order to understand and gain the most knowledge out of it (8). In our study, about 22.12% of second years spent about less than 15 minutes reading an article which needs more improvement compared to first year, third year and fourth year. The title of an article contains an overview of the topic. In previous studies, it is also said that the title of an article can also contain the background of the topic (5). The abstract of an article contains the documentation of the whole article which is also the same case obtained from previous studies.

In previous studies, researchers quoted that the part which explains the statistical analysis of an article is the discussion (8). In our present study, the part which contains the statistical analysis of an article was questioned and only about 23.08% were aware that the part which explains statistical analysis is the discussion.

In our present study, it was found that the first year students read an article everyday. The second years spend more time reading an article more knowledgeable about the contents of the article and they had responded correctly to the questions when compared to first, third and fourth years. They have the knowledge of what the title of an article contains, what abstract of an article contains and the main findings of an article. It is observed that the second year students were more into reading an article and also had better knowledge and information about how to read an article when compared to the group of other years.

The sample size was small and more sample size would be beneficial to assess the knowledge about reading an article more accurately.The survey can be conducted in offline mode rather than online so that the knowledge of the subjects could be analysed accurately.

CONCLUSION

It is important for people in the scientific fields to know how to read an article. This study is helpful to pass the knowledge and information about how to read an article. This study needs a larger population in order to acquire adequate information about how to read an article. It is observed that the group of second years were more into reading an article and also had better knowledge and information about how to read an article when compared to the group of other years.

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CONFLICTS OF INTEREST:
The authors declare that there are no conflicts of interest in the present study

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