# A bibliometric study of scientific output in Tabriz University of Medical Science 1988-1996

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**Abstract:**

A bibliometrics analysis was recruited to visualize the scientific output of faculty members of Tabriz University of Medical Sciences for a period of eight years (1988-1996) .The subject fields surveyed are: Hygiene and Nutrition, Nursing and Midwifery, Medicine, Para medicine and Dentistry. The general purpose of study is :1- to determine whether academic status and prestige have any impact on the level of productivity, 2- to study the productivity within different fields of medical science.3- to determine the most productive area amongst the fields.4- to determine the least productive one. 5. To illustrate the trend of scientific output through out 1988-1996 in the university. The study illustrated that the number of publications during the period under study witnessed a sharp continuous growth, the study further showed that that the population under study produced about 2166 scientific publications in the form of books(7%), periodical article (56%) and research reports (37%). 69.3% of researches were carried out by individual researcher; and the frequency of group research was only 30.7%. The majority of papers and research reports (93.3%) appeared in local journals and only 6.7% of them were published in international journals.  The result showed that, those with a higher degree like PhD and postdoctoral qualification published and presented a lot more papers, compared to those who had lesser degree of qualifications. Observation from the analysis highlighted the following points:

Medicine is the most productive area amongst the six subject fields (66.5) and Dentistry is the least productive one (1.5%). The number of publications showed a sharp increase during the period of study .

**Introduction:**

There should be an evaluation mechanism to assess the quality and quantity of scientific output of scientists and researchers of universities. Bibliometry is a wel-known method to evaluate the scientific outputs of academic members. This paper involves itself to evaluate the quantitative of scientific output of researchers and academic members of a medical science  university and illustrates the trend of scientific output in this university during 1978-1984; it also intends to determine the most productive area amongst the fields and the least productive one. The row data collected by distributing a questionnaire among all researchers and academic members of the university.

**Methodology :**

A questionnaire was administered among faculty member to collect the initial data. All the researchers and academic members of the university  were chosen as the survey population.

Inferential statistic (one-way Anova) was used to determine the difference between and among demographic characteristic of the study population. Pearson's correlation coefficient was used to test the correspondence between academic status and form of productivity.

Fig.1 Distribution of publications in different fields
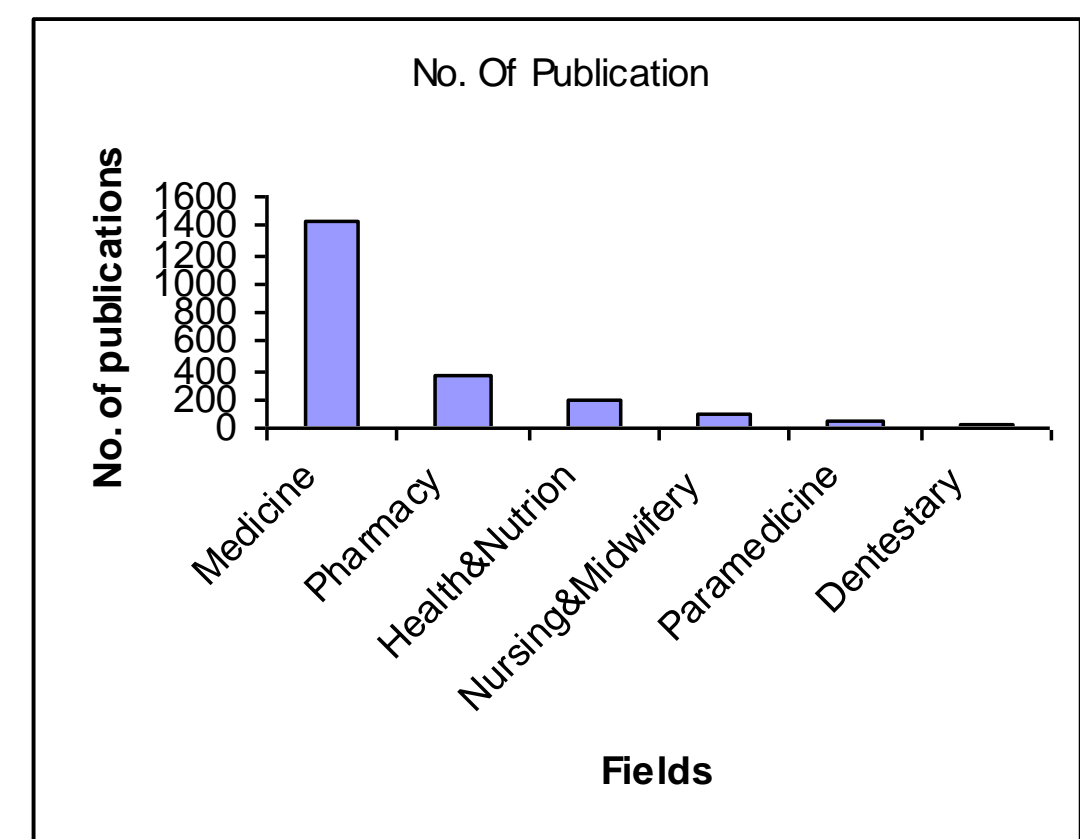


As Fig. 1 shows, the most majority of publication has been done in medicine field and dentistry was the least one.

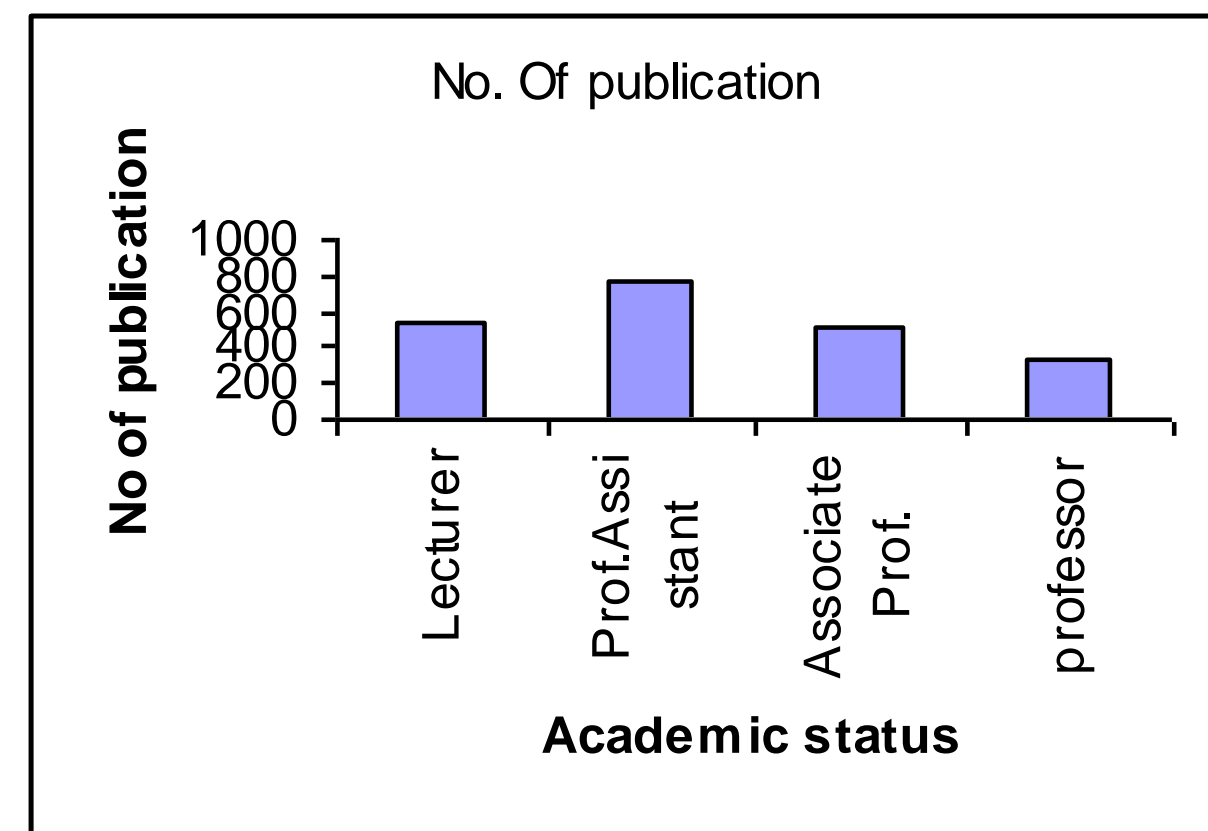Fig.2 Distribution of publication according department prestige status.



Figure 2 represents the publication productivity according to his/her status in the department, as it can be seen the most majority of publication(%35,6 ) achieved by Assistant professor at this university but with regard to the relationship between the number of department prestige status and their productivity, the most productive group was the Associate professors because they with %10  in number of the population, produces %23,5 of all produced publications.

The result obtained in this study showed that there is a significant difference between the number papers published by the academic member with department prestige/status of associate professor as compared to others. With reference to the publication of papers in both national as well as international journals, the F Value is <.0001 . This indicates that academic members with associate professor status are concerned with an increased incentive towards research and publishing than the tree other groups( Professor, Assistant Professor and lecturer). Promotion in department status may is the driving force behind Associate Professors trying to get Professor status at department.

Fig.3 Distribution of publication  in local and international journals.
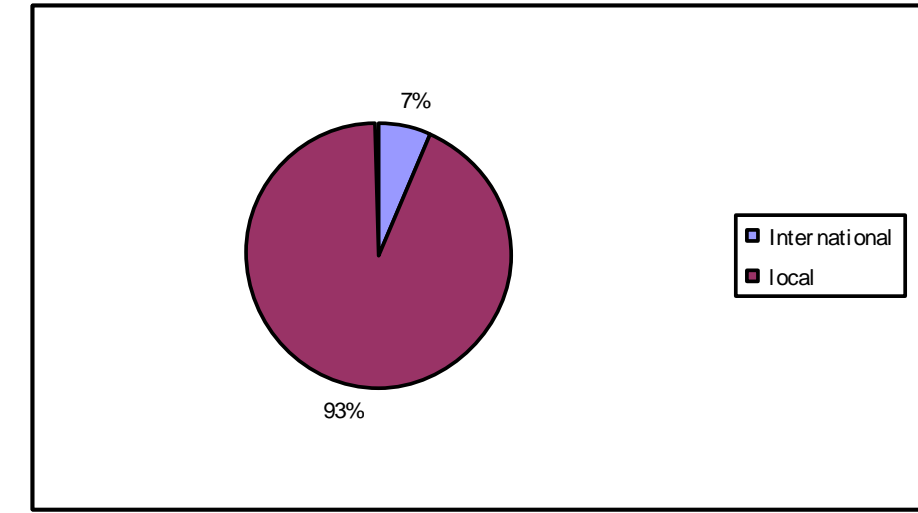


As Fig.3 shows the majority of publication at this university was published in local journals and the proportion of international journals was very low and dispensable. A possible explanation for this behaviour may be that a lot of academic members at this university are not familiar with foreign languages.

Fig.4 Distribution of  publication according individual and cooperation .
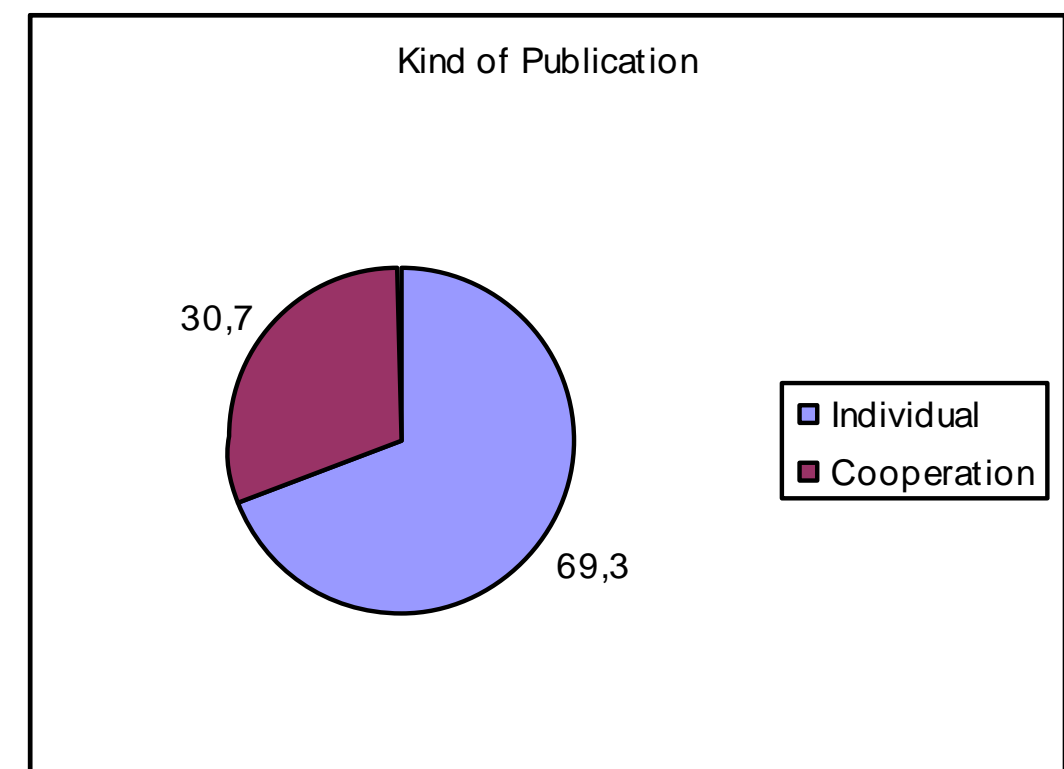


As the Fig.4 illustrates the majority of publication (%69,3) at this university have been achieved individually, it seems the cooperation authority at this university is low or in other word a lot of academic members at this university prefer to work individually than  cooperation with other authors.

Table 1 Distribution of publication according to the   Sex.

| Sex | No. of  Persons | % persons | No. of Publication | %Publication |
|---|---|---|---|---|
| Male | 275 | %76 | 1750 | %81 |
| Female | 89 | %24 | 416 | %19 |

As Table 1 illustrates the most majority of academic members at this university are men and they have produced %81 of all publications. Women produced only %19 of all publication. Apparently it seems the men have published profusely than the women, but the fact is that they got the same Rank in analyzing of data, in other words the productivity among the academic members doesn't related to the sex.

**Conclusion:**

This study showed that the population under study produced about 2166 scientific publications in the form of books, periodical article (56%) and research reports (37%), while the book formed only 7% of the output, and 69.3% of researches were carried out by individual researcher; and the frequency of group research was only 30.7%.

The majority of papers and research reports (93.3%) appeared in local journals and only 6.7% of them were published in international journals.  The result showed that those with a higher degree like PhD and postdoctoral qualification published and presented a lot more papers, compared to those who had lesser degree of qualifications.

Observation from the analysis highlighted the following points:

Medicine is the most productive area amongst the six subject fields (66.5) and Dentistry is the least productive one (1.5%). The number of publications during the period under study witnessed a sharp continuous growth. Distribution of scientific output in the main fields of study in Tabriz University of Medical Sciences was as follows: Hygiene and Nutrition (9.1%), Nursing and Midwifery (3.9%), Medicine (66.5), Para medicine (2.5%), and Dentistry (1.5%).

**Reference:**

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Daisy Jacobs (2001). A bibliometric study of the publication patterns of scientists in south Africa 1992-96.Journal of information Research, Vol.6No.3,April 2001.

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