DEVELOPMENT OF STATUS PAPER ON HEALTH RELATED RESEARCH PAPERS PUBLISHED IN NATIONAL AND INTERNATIONAL JOURNALS(In the context of Nepal Only)

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1. INTRODUCTION.

1.1 Background of the history of health science in Nepal.

The health science as it is today is the greatest triumph of the human mind over nature. The story of its origin, development and achievements is one of the less known parts of history and has just initialised its way into health literature. The ancient/medieval science can be understood in the light of the current context, only by tracing back and correlating the then developments with the latest emerging scientific developments. With this end in view, several earlier works started being translated into English in the nineteenth century, whereas some sporadic attempts to study health science literature were started in the twentieth century.[1]

The modern system of medicine in Nepal occurs in Dr. H. A. Oldfield's book "Sketches in Nepal". Dr. Oldfield is the first author to mention about a hospital in Nepal[2]. Followng Jung Bahadur's death in 1877, one finds a certain amount of scarcity regarding medical information[3]

Although several books on the health science and its literature were published in Nepal, the serials literature started with the advent of the Nepal Medical Association in 1965. The establishment of the Nepal Medical Association is a landmark in the history of symbiotic relationship of Nepali and western scientific ideas. During the twentieth century, the health science literature progressed and 1990's can be regarded as the most glorious decade for health science , when Health Learning Materials of Institute of Medicine appeared on scene of Nepali Health literature.

1.2 The problem

A great wealth of literature generated in this field at a considerable cost of time and energy is lying scattered almost unknown and unused. There is hardly any bibliographic control specially in the field of periodic literature. Unnecessary duplication of work occurs for want of proper bibliographic control. Scientific periodical literature is however, highly significant for the study of the development of scientific ideas in as much as contribution of Nepali health professionals to the growth and development of health literature can be determined to a large measure on its basis.

1.2.1 Literature survey

The literature in the area of measurement of bibliographic information related to its theoretical and application aspects was surveyed. The metric study in this field through various view points is very extensive; as a result, certain choices had to be made for this literature survey. Initially, the search was confined to readily available material in open literature, and the very early of original papers in the field which introduced basic ideas were identified. Later on the tools scanned were:

1. "Health Science Bibliography of Nepal" for the period 1978-1996.
2. "Medline" database for the period 1989-1989.
3. " Library and Information Science Abstract" 1970 to 1989

These tools were scanned to find out what has been done in the field and the studies undertaken in health science in Nepal.

The term "Scientometrics" has Russian origin and was used for the application of quantitative methods of Science[4] and overlaps with 'Bibliometrics to a considerable extent. Alan Pritchard in 1969 had coined and defined the term 'Bibliometrics' as the application of mathematics and statistical methods to books and other media of communication[5]. The most basic bibliometric data, a count and elementary categorization of publication by country and field , is still of interest today.

The first publication count appears to have been the paper by F. J. Cole and N. B. Eales in 1917. Cole and Eales analysed comparative anatomy of papers by counting the number of publications by country, from 1543 to 1860; this count included books and journal articles. This count carefully constructed and well interpreted, could still serve as a model for the application of these techniques in the assessment of international scientific activity [6].

Since then there have been many studies related to this field in the area of growth of literature, bibliometric laws, citation pattern, evaluation of research output, etc.

1.2.1.1 **Growth of Literature**.

D. D. Solla Price published in 1963 som of the first observation of the exponental rate of growth in the number of scientific journals and the corresponding exponental rate of growth of abstract journal[7]. In 1971, William Gofffman developed an epidemic theory for the growth rate of a specific area of activity[8].

In 1964, Richard H. Orr and Alice A. Leeds looked at the growth and other characteristics of the U. S. biomedical literature to see if bibliometric analysis could shed light on communications within the biomedical community[9].Kenneth O. May measured the growth and quality of mathematical literature. The well known hypothesis of expnential growth of the scientific literature is strongly confirmed but at a rate less than half that was found by D. D. Solla Price and other investigators. This discrepancy appears to be due to the failure of previous studies to take into account the titles published before beginning of the time series used [10]. I. N. Sengupta studied the growth of the literature of biochemistry and changes in ranking of periodicals, and suggested that during phases of rapid and vigorous growth of knowledge in scientifc discipline, articles of interest to that discipline appear in increasing numbers in periodicals distant from the field [11].

In 1978, G. Nigel Gillbert reviewed a number of indicators of the growth of science to assess their strength and weakness. The focus has been on the problems involved in measuring two aspects of scientific growth, growth in man power and growth in knowledge[12]. T. Braun and E. Bujdoso investigated growth of a journal from the view points of distribution of papers, languages and topics, turnover of papers, distribution and growth of the number of papers from various countries, and doubling of times[13]. Study made by J. Tague, J. Beheshti, and L Rees-Patter stressed on the law of exponental growth, its evidence, implications and forecasts[14].

Though the growth of literature initially concentrated on the cumulation of literature subsequently resulting in the exponential growth, latter studies emphasised on the growth from the view points of number of papers, journal publications, research workers in the field, growth of behaviour, etc.

Bibliometric research has developed a body of theoretical knowledge and a group of techniques and applications based on the distribution of bibliographic data elements. The wider application of bibliometric techniques is leading to the development of new and more precise techniques for greater economical and efficient management of the materials and services. It was also found that the significance study health literature in relation to Nepal using bibliometric study is almost nil. The bibliometric techniques, thus identified for the use in this research investigation are growth of literature, scientific productivity and collaboration, content analysis, etc.

Hence it is proposed to undertake a bibliometric study of periodical literature in health science literature in Nepal.

1. 3 Objectives.

The main aims and objectives of the study are:

1. To trace the growth of literature in the subject of health science in Nepal, mainly periodical literature.

2. To study the journal publications in terms of articles published;

3. To determine the scientific productivity in terms of:

   a. authorship pattern
   b. collaborative pattern.

4. To identify the elites in the subject in terms of:

   a. contribution
   b. subject pattern
   c. journal preference;

5. to do the content analysis on the basis of key words.

1.3 Scope of the study.

The study is proposed to be confined to the articles published about health science literature to the period 1989 to 1998. Reference is taken to the early period also. The proposed journal to be studied in this study are given under:

a. The Journal of the Institute of Medicine
b. The Journal of Nepal Medical Association

The other journals which has been taken for study are all the journals entered in Annotated Health Science Bibliography of Nepal (1950-1994).

1.4 Methodology.

It is proposed to conduct the study using technique for scientometric analysis such as growth of literature, scientific productivity, content analysis, etc. The creation of machine readable database on the subject health literature helped in the retrieval of bibliographic information, using various access points.

Each journal undertaken in this study was scanned and the bibliographic information from the relevant articles were noted down on the data sheets. For contents, each article was persued and various subject headings from the article were noted down on the data sheets.

Apart from this, MEDLINE and POPLINE database were also used for the study

1.5 Facilities of the Data Base on health literature.

The use of machine-readable data base on status of health literature helped in performing the follwing analysis:

a. Growth of litereature.

In the beginning the data was inputted as and when it was collected. Later on search was done year wise and subject wise to count for each years' output to get the growth rate of literature.

b. Author's productivity.

An author's index was brought out using data base and each author was counted for his/her occurences in the entries from the same index and highly productive authors were identified.

2. Highly productive authors.

After the identification of highly productive authors from the author index, a separate search was done for each highly productive author and the search results were pointed to the following parameters:

a. Co-authorship pattern
b. Contributions
c. Subject scattering
d. Length of the text and reference
e. Journal preference

3. Co-authorship pattern.

An author wise sort list which included the name of first author and other authors was brought out using 'author field' in the print format. From the printed output, entries with single author, two authors, three authors and others were counted and co-authorship pattern was noted.

4. Content analysis.

The field, keyword field from the database were managed into a single sort key so as to get the keyword index alphabetically. This index was later on used to count the record numbers printed against each word and a table was drawn for words and their frequencies.

5. Journal Scattering.

A computer output related to journal index was used to find out the number of articles that appeared in various research journals taken in the study. A table related to the scattering of articles in various journals was drawn.

6. Analysis.

The following analysis were performed on the data base created in this study:

a. Growth of health literature was determined using the yearwise listing of the records, along with authors' field;
b. Overview of research journals undertaken.
c. Scientific productivity in the different subject and collaborative pattern.
d. Content analysis was described using the keyword index.

e. Database was created using the software package CDS/ISIS.

7. Definition of term.

a. History of health literature.

It is the study of development of science and technology.

b. Information source

It is an item/entity which gives information. It can be in a recorded form or in an object form.

c. Scientometrics.

It is the study relating to the measurement of science using bibliometric measurements for evaluation of scientific progress, level of scientific development, social relevance and the impact of application and technology, etc.

d. Authors productivity.

Lokta's law describes the productivity of authors. It deals with the relationship of quantity of publications of individuals and scientific organizations, identification of elites in science on the basis of their publication output as well as impact of social change on productivity.

e. Data base

An organised collection of computer records, where items of information called fields are accessible from the search mode.

2. Research journals – an overview

Research in health science in Nepal started getting published in various research journals in nineteenth century. It was organised in 1965 with the publication of "Journal of Nepal Medical Association". Research journals selected for the study are listed as below:

1. Journal and Proceedings of Nepal Medical Association
2. Journal and Proceedings of The Institute of Medicine
3. Journal and Proceedings of Nepal Paediatric Society
4. Journal and Proceeding of Nepal Pharmaceutical Association

Apart from this all the journals entered in the Annotated Health Science Bibliography of Nepal from 1950-1994 were also taken.

2.1 Journal and Proceedings of Nepal Medical Association.

The first volume of this journal was started in 1965 printed at Nepal Press and published by Nepal Medical Association. The frequency of the journal at present is quarterly.

2.2 Journal and Proceedings of The Institute of Medicine.

Volume 1, 1979of the journal was published by The Institute of Medicine, Tribhuvan University. The frequency of the journal is six monthly.

2.3 Journal and Proceedings of Nepal Pharmaceutical Association

The first volume of the journal was published in 1974 by The Napal Pharmaceutical Association. The frequency is irregular.

2.4 Journal and Proceedings of Nepal Paediatric Society

The first volume of this journal was published in 1982 by the Nepal Pharmaceutical Association. The frequency is irregular.

4. Growth of health science

The study covered three medical journals to get contributions on various subjects in health literature. The Journal of the Nepal Medical Association started publishing the journal in 1965 Since then the journal has continued till now. Other journals taken into account are listed below:

The Journal of the Institute of Medicine
The Journal of Nepal Paediatric Society
The Journal of Nepal Pharmaceutical Association

4.1Distribution of articles

4.1 The distribution of articles in various journals are as follows:

The Journal of Nepal Medical Association

Year	Journal of Nepal Medical Assoc
1989	44
1990	28
1991	62
1992	42
1993	46
1994	35
1995	55
1996	46
1997	64
1998	32

Journal of The Institute of Medicine

Year	Journal of The Institute of Medicine
1989	33
1990	38
1991	38
1992	38
1993	51
1994	23
1995	17
1996	24
1997	22
1998	32

4.2 Corporate affiliation of the contributors

Year	University and academic institutions	Research institutions	Government, private and others
1989	23	1	8
1990	19		19
1991	20		18
1992	30	2	2
1993	38	1	12
1994	11	1	23
1995	31	3	20
1996	12	3	30
1997	28	5	31
1998	18	14	14

4.3 Authorship pattern of Journal of The Institute of Medicine

Year	Single	Two	Three	Four	Four or more
1989	14	8	5	9	8
1990	6	10	6	2	4
1991	36	13	9	3	1
1992	17	6	9	5	5
1993	15	10	12	3	6
1994	12	6	10	5	2
1996	20	11	13	2	9
1997	25	8	2	4	7
1998	21	15	8	7	13
1999	14	8	4	3	3

4.4 Authorship pattern of The Journal of Nepal Medical Association

Year	Single	Two	Three	Four	More than Four
1989	9	7	5	7	5
1990	12	9	8	5	4
1991	14	8	8	6	2
1992	2	12	7	6	11
1993	25	8	3	7	8
1994	11	7	2		3
1995	3	4	3	3	4
1996	5	7	2	3	7
1997	5	6	3	2	6
1998	8	9	7	4	4

4.5 Contributions in Journal of The Institute of Medicine and The Journal of Nepal Medical Association

	Year									
Journal	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
JNMA	32	64	46	55	35	46	42	62	28	44
JIOM	33	38	38	38	51	23	17	24	22	32

4.6 Contributions of Highly Productive Authors

Author: Shrestha, Hari Gobinda

Year	No. of Contributions	Total No. of Pages	Journal/Source	Subject
1989	7	40	JNMA, J.Inst Med	Cytological techniques
1990	6	30	J.Med.Lab.Sci, Proceedings of Bir Hospital, JNMA, J.Inst Med, Indian J. Med. Microbiol	Biopsy, needle
1991	3	7	Proceedings of the Asian Conf. In Med. Lab., JNMA	Cholelithiasis
1992	5	29	J. Inst Med, JNMA	Biopsy, needle
1993	7	47	JNMA, J Inst Med	Biopsy, needle
1994	33	23	J. Japanese Assoc. Infect. Dis., Hyogo J, Proceedings of Japan, Southeast Asian J. Trop. Med Pub Health, Kansensogaku Zasshi	Serepidemiologic methods

Author: Dixit, Hemang

Year	No. of contribution	Total no. of Pages	Journal/Source	Subject
1989	5	29	JNMA, NEPAS, J. Inst IOM,	Immunization
1990	4	36	Unpub. J.Inst Med	Child advocacy
1991	10	97	NEPAS, JNMA, WHO SEARO	Child welfare
1992	11	60	NEPAS, J. Inst Med.	Child advocacy
1993	3	29	JNMA, J Inst Med, NEPAS	History of Medicine
1994	1	3	World Health Forum	Social change
Total	34	254		

Author: Sharma, Pushpa Raj

Year	No. of contribution	Total no. of Pages	Journal/Source	Subject
1989	4	13	Ann Trop Paed, NEPAS	Acute respiratory infection
1990	4	20	NEPAS, BIUTLD	Acute respiratory infection
1991	-	-	-	
1992	8	38	J. Inst Med, JNMA	H. pylori rotraviurs infection
1993	4	12	J. Inst Med, NEPAS	Respiratory-therapy
1994	7	13	RONAST, NEPAS	Acute Respiraratory Infection
Total	27	253		

Author: Rai, SK

Year	No. of contribution	Total no. of Pages	Journal/Source	Subject
1989	3	16	Indian J. Pediatr, J. Inst Med, Indian J. Med Microbiol	Bacterial study
1990	2	11	J. Clin Biochem Nutr, Indian J Med Microbial	Body mass index
1991	2	3	Southeast Asian J Trop Med Pub. Health,	Intestinal diseases-parasitic
1992	3	20	Southeast Asian J Trop Med Pub Health, JNMA, J Japanese Assoc Infect Dis	Seroepide miologic methods
1993	6	20	Southeast Asian J Trop Med Pub Health, JNMA, J Inst Med, Nurtition Research	Seroepide miologic methods
1994	5	32	J. Japanese Assoc Infect Dis, JNMA, Hyogo J, Proceedings of Japanese Conf, Southeast Asian J Trop Med Pub Health, Kansensogaku Zasshi	Seroepide miologic methods
Total	21	102		

Author: Kafle, Kumud Kumar

Year	No. of contribution	Total no. of pages	Journal/Source	Subject
1989	5	19	JNMA, J Inst Med, Apua Newsletter, JNPA	Drug utilization
1990	2	9	Int. Workshops paper	Drug evaluation
1991	4	70	UNICEF, J Inst Med, Indian J Pharm	Drug utilization
1992	6	76	Soc Sci Med, UNICEF, J Inst Med	Drug industry
1993	3	28	The Lancet, Unpub, NEPAS	Drug utilization
1994	1	4	J Inst Med	Prescription, drug
Total	21	206		

Author: Adhikari, Ramesh Kant

Year	No. of contribution	Total no. of pages	Journal/Source	Subject
1989	5	35	NEPAS, Indian J Pediatr, J Inst Med	Bacterial study
1990	1	5	J Inst Med	Sturge-Weber Syndrome
1991	2	11	UNICEF	Nutrition
1992	6	87	J Inst Med, FPAN, JNMA	Sanitation
1993	1	5	NEPAS	Nutrition
1994	10	25	NEPAS, RONAST, J Inst Med	Breast feeding
Total	25	168		

Author: Banskota, AK

Year	No. of contribution	Total no. of pages	Journal/Source	Subject
1989	4	40	Skeletal Radiol, J Inst Med	Hip fractures
1990	2	17	J. Inst Med, Proceedings of Bir Hospital	Disabled
1991	5	34	Proceedins of Bir Hospital, J Inst Med	Tibial fractures
1992	1	5	JNMA	Disabled
1993	3	34	JNMA, J Inst Med	Rehabilitation
1994	4	n.p.	Society of Surgeons of Nepal, RONAST	Bacterial infection
Total	19	130		

Author: Shrestha, BM

Year	No of contribution	No. of pages	Journal/Source	Subject
1989	1	8	J Inst Med	Van Willebrands diseaese
1990	4	27	J Inst Med, JNMA Proceedings of Bir Hospital	Tuberculosis
1991	3	11	J Inst Med, Proceedings of Bir Hospital	Spinal cord disease
1992	2	4	JNMA, Society of Anaesth Nepal	Brachial plexus
1993	3	13	JNMA	Surgical training
1994	5	20	J Inst Med, JNMA, RONAST	Surgery-operative
Total	18	83		

Author: Thapa, Shyam

Year	No. of contribution	Total no. of Pages	Journal/Source	Subject
1989	7	98	Advances in Conatraceptives, Stud. Fam Plann, J Inst Med, Asia-Pac Popul J	Contraceptive methods
1990	3	40	J Bisoc Sci, Asia-Pac Popul J	Family planning
1991	1	25	Prog Clin Biol Res	Breast feeding
1992	1	8	Stu Fam Plann	Abortion
1993	-	-	-	
1994	7	87	Advances in Population, JNMA, J Inst Med, Demography	Abortion
Total	19	258		

Author: Pokhrel, BM

Year	No. of contribution	Total no. of pages	Journal/Source	Subject
1989	1	5	Indian J Pediatr	Bacterial study
1990	2	17	J Inst Med, Ann Trop Med Parasitol	Glutaraldehyde test
1991	-	-	-	
1992	2	15	J Inst Med	H. Pylori
1993	2	12	J Inst Med	Vibroocholera-isolation and purification
1994	9	20	RONAST, NEPAS J Inst Med	
Total	16	69		

4.7 Subjectwise breakup of contribution

Subject	1989	1990	1991	1992	1993	1994
Education	3		3	5	18	15
Health care	47	40	47	49	83	54
Disease and Injury	57	62	47	49	59	44
Procedures and Techniques	30	31	24	25	25	29
Drugs and Chemicals	5	6	6	5	3	7
Social Sciences	13	17	18	22	17	26
Psychiatry and Psychology	3	2	7	2	2	2
Biological Sciences	9	10	9	15	11	10
Organisms	2	9	2	-	-	2
Physical Sciences	-	-	-	-	-	-
Information Sciences	1	-	-	1	-	1
Humanities	1	-	-	-	5	1

5. Findings, Conclusions and Suggestions for Further Research

In this study literature of Health Science related to Nepal published in various journals and specifically The Journal of the Institute of Medicine and The Journal of Nepal Medical Association during the period 1989-1998 has been analyzed. The bibliometric analysis was done to determine the author's, productivity,

collaborative pattern of authorship, highly productive authors and their pattern of contributions along with the mapping of subject. To undertake bibliometric analysis a machine-readable database was prepared. I

It was found that the top authors contributed most of the articles.

The authors found to be highly productive were: Adhikari RK, Banskota AK, Dixit H, Kafle KK, Pokhrel BM, Rai SK, Sharma PR, Shrestha HG, Shrestha BM, Thapa S

Mapping of subjects revealed that most of the authors concentrated on basic subjects which Nepal is facing like Respiratory diseases, biopsy, Immunization, Bacterial study, Encephalitis, Breast feeding, Rehabilitatin, Family planning, Typhoid, etc.

Regarding the contribution of authors affiliated to university and academic institutions contributed most.

Earlier the trend was toward the single authorship and later on the trend was towards multiple authorship.

Scattering of authors shows that almost all the authors contributed to the basic field of their specialty. Most of the articles written in journals published from Nepal does not test the hypothesis.

The authors in the Nepalese journals are in decreasing trend. The main reason is that the articles published in Nepalese journals are not indexed in INDEX MEDICUS so the research type of articles are published in foreign journals.

6. Suggestions for further research

6. 1. The growth of literature in health sciences requires further investigation from the point of view of mathematical modelling.

6.2 Development of the subject can be further probed by examining the relationship of text pages with references at level of authors, articles and journals. The text value and the occurrences of citations of papers can enable one to have a peep into the trends in different areas of health science literature.

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Appendix 1:

The Journal of the Institute of Medicine: A Review, 1979-88

Abstract

This article analyses The Journal of the Institute of Medicine and shows how medical Journalism developed in Nepal. The methodology includes collection and analysis of all the issues of The Journal of the Institute of Medicine form 1979-88. Ten different tables are presented for the analysis of data. It is concluded that a professional journal like the journal of the Institute of Medicine is dependent on voluntary contributions for materials and its standard is based on the quality of material made available to it.

Objective

The objective of this article is to analyze The Journal of the Institute of Medicine, which has a great responsibility for improving health care standards and medical education in this country. The analysis is objective and shows the development of medical journalism in Nepal.

Material and Methods

All the issues of the Journal of the Institute of Medicine from 1979 to 1988 are considered. Space is expressed in terms of the nearest whole page. All updates, articles on methods in medicine, medical education and reviews are grouped together as teaching reviews. Editorials are considered separately. Research articles include original articles.

Observations and Comments

Table 1

Number of articles

	1979-80	1981-82	1983-84	1985-86	1987-88
Editorials	1	-	3	-	-
Research articles	16	20	23	30	45
Teaching reviews	24	23	21	28	21
Case reports	3	1	5	4	19

As evident from Table 1 the total number of Teaching reviews does not show any significant change but the number of Research article and case reports between 1979-88 rose doubling the output. Editorial articles appeared in 1979-80 and 1983-84 only.

Table 2

Mean of authors per articles

	1979-80	1981-82	1983-84	1985-86	1987-88
Editorials	1	-	1	-	-
Research articles	3.25	2.65	2.70	2.97	2.87
Teaching reviews	1.17	1	1	0.79	0.80
Case reports	1.33	1	2.5	1.67	3.21

Table 4 shows that page space in 1987-88 crossed the 500 page mark mainly because of an increase in the number of research articles and case reports.

Table 3
Mean of authors per article

	1979-80	1981-82	1983-84	1985-86	1987-88
Editorials	1.5	-	2	-	-
Research articles	10.09	8.8	14.14	7.9	6.70
Teaching reviews	6.81	9.70	6.86	6.57	8.19
Case reports	5.33	8	4.2	3.5	5.72

Table 4
Total page space

	1979-80	1981-82	1983-84	1985-86	1987-88
Editorials	1.5	-	6	-	-
Research articles	161.5	176	297	237	293
Teaching reviews	231.5	223	151	184	172
Case reports	16	8	21	14	92
Grand total	410.0	407	475	435	557

Acceptance and Publication Time

Usually it takes 3 to 6 months from acceptance to publication of articles. In some instances the duration may be prolonged because of revision of the manuscript. (No data available)

Table 5
Affiliation of principal authors

	1979-83	1984-88
IOM, Tribhuvan University	53	58
Government	23	27
Non government	38	47

Table 5 shows the position of principal authors of journal articles. Places of affiliation were divided into three categories, the Institute of Medicine, Tribhuvan University, government, and non-government (also foreign aid agencies). By 1984-88 IOM, TU comprised 43.93 percent of the principal authors.

From 1984-88 authors belonging to IOM, Tribhuvan University, comprise 67%. This trend of replacement of replacement of practitioners by academicians reflects the experience of other journals.

Table 6
Sex distribution of principal authors

	1979-83	1984-88
Male	101	129
Female	2	26

The sex distribution of principal authors has undergone a change during the 10-year period. Until 1983 only 2 percent of principal authors were female. But by 1988, the percentage of female principal authors reached 16.77. There is reason to hope that the shift will continue until equality is attained.

Table 7
Distribution of educational background of principal authors

	1979-83	1984-88
Medical doctors	82	94
Ph. D. degree	2	3
Degree below Ph.D. level	25	29
No degree after names	5	8

Table 7 shows that during 1979-83, 70 percent of the principal authors were medical doctors. During the next five years the percentage increased to 70.14.

Table 8
Number of authors per article

	1979-83	1984-88
One author	73	72
Two authors	6	24
Three authors	10	24
Four or more author	15	32

Table 9
Percentage distribution of subject matter

	1979-83	1984-88
Total Number	117	153
Subject matter	-	-
Medical practice	28.2	32.2
Surgery	0.8	2.6
Public health	2.5	4.6
Nursing	0.8	3.9
Medical education	14.5	3.9
Family planning	8	3.2
PHC	1.7	4.6
Ophthalmology	8.5	2.6
Health surveys	12	13.8
Health planning	3.4	0.6
Pharmacy & pharmacology	4.2	6.5
Ayurved & Trad. Medicine	5.9	1.3
Malnutrition	6.8	3.2
MCH	4.2	1.9
Miscellaneous	5.1	14.4

Table 9 excludes editorials and letters. There is relatively little change in the distribution of subject matter. More articles deal with medical practice. There is decline in articles on family planning, medical education, ophthalmology and nutrition, etc.

Table 10
Asian References

	Total No.	No. of articles (%) Asian references			
		Nil	25%	26-50%	50%
Research articles	112	24 (22.0)	33(30.0)	19(17.0)	36(32.0)
Teaching reviews	54	12(22.0)	11(20.0)	13(24.0)	18(33.0)
Case reports	29	24(83.0)	4(15.0)	1(3.0)	-
Total	192	60(31.0)	48(25.0)	33(17.0)	54(28.0)

Table 10 shows references from Asian Journals. Eleven research articles, fifty six teaching reviews, and four case reports are unreferenced.

There is a lack of Nepali as well as Asian references. Over 56% of articles had none or less than 25% references from Asian Journals.

Is our research to worth quoting? It is difficult to search for Asian references? Would it be useful to introduce a bibliography or review of work published in Nepali and Asian Journals, which could be printed in the J. Inst. Med.?

From the aforementioned data it is evident that in many articles there are no references. Does this mean that authors have no or difficult access to relevant information?

Discussion

In the course of ten years, J. Inst. Med. has changed in character and content, the nature of contributors has also changed. Now there is an English editor who is included in the editorial board. The journal is now listed in Excerpta Medica, Bio-sciences information service and Index Medicus which exposes the journal to other parts of the world. The Journal has adopted the Vancouver Reference System for listing articles.

Though a professional journal like J. Inst. Med. is entirely dependent on voluntary contributions for materials, the prestige and enhancement of their career will entice future contributors to submit their manuscripts to journal.

Concluding Remarks

One should remember that a journal, like a computer, is dependent on the quality of the material made available to it. The responsibility for quality maintenance lies with ourselves. So, we should contribute articles to our journals instead of submitting them to overseas journals. Only the will our journals be of international standards. 4

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