

A SURVEY OF RESEARCH PUBLICATIONS IN THE S A JOURNAL OF PHYSIOTHERAPY - 1984 — 1988

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SUMMARY

Following a two-year survey of current research at the eight University Physiotherapy Departments in South Africa, the major articles published in the *South African Journal of Physiotherapy* over the last five years were reviewed to establish authorship, research methodology and subject matter covered. It was found that of the total of 81 papers published during this time, 25 (30,9%) were produced by University Physiotherapy Departments. The first authors of the remaining 56 papers were physiotherapists employed elsewhere (41,1%); doctors/dentists (25,0%); other members of the allied medical disciplines (10,7%), other professionals (12,5%), and authors with unspecified qualifications (10,7%). Of the 25 articles written by University Physiotherapy Department authors, there were more descriptive papers (72,0%) than experimental (16,0%) or clinical reports (12,0%) or surveys (0,0%), and there were more articles on education/administration (36,0%) than on any other topic. Of the 56 papers published by non-University authors, there were again more descriptive articles (76,8%) than experimental (12,5%) or clinical reports (1,8%) or surveys (8,9%). These findings suggest a need for more scientifically orientated research, such as clinical and experimental trials, and for the publication, in the *South African Journal of Physiotherapy*, of more of the research projects of the University Physiotherapy Departments.

OPSOMMING

Na 'n twee-jaar-lange ondersoek van huidige navorsing by die Fisioterapie Departemente van Suid-Afrikaanse Universiteite, is die belangrikste artikels, wat gedurende die afgelope vyf jaar in *Die Suid-Afrikaanse Tydskrif Fisioterapie* verskyn het, nagegaan om outeurskap, die aard en onderwerpe van die artikels vas te stel. 25 van die 81 gepubliseerde artikels (30,9%) is deur die Fisioterapie Departemente van Universiteite geproduseer. Die meerderheid van die oorblywende 56 artikels is gelewer deur fisioterapeute elders in diens (41,1%), dokters/tandartse (25,0%), lede van ander verwante mediese beroepe (10,7%), ander beroepe (12,5%) en ander skrywers van ongespesifiseerde kwalifikasies (10,7%). Van die 25 artikels deur outeurs van Fisioterapie Departemente van Universiteite geskryf, was die meerderheid beskrywend (72%), en slegs 16,0% eksperimenteel, 12,8% klinies of 'n opname (0,0%). Meer artikels (36,0%) het oor opvoedkunde/administrasie gehandel as oor enige ander onderwerp. Uit 56 artikels, deur nie-universitêre skrywers gelewer, was 76,8% beskrywend van aard, 12,5% eksperimentele studies, 1,8% klinies en 8,9% opsommend van aard. Hierdie bevindings dui op 'n behoefte aan meer wetenskaplikgeïntereerde navorsing, bv. kliniese- en eksperimentele navorsing, asook die publikasie van meer navorsingsprojekte deur Fisioterapie Departemente van Universiteite in *Die Suid-Afrikaanse Tydskrif Fisioterapie*.

INTRODUCTION

The findings of a two-year survey of current research at the eight University Physiotherapy Departments in South Africa¹ showed that an average of 75 research reports are produced annually by students under the supervision of academic staff. To establish whether such research is published in the *South African Journal of Physiotherapy*, I analysed how many articles are published by staff and students of the eight University Physiotherapy Departments and how many articles are published by non-university Physiotherapy Department physiotherapists and other professionals, as first authors. The period of analysis was from 1984 to 1988. In addition, the subject matter and research methodology were analysed. These analyses are similar to those of P J Holliday² and E Dean³. The findings indicate the extent to which

University Physiotherapy Departments communicate their research findings through the Journal.

METHOD

The major articles published in the *South African Journal of Physiotherapy* over the last five years (1984-1988) were reviewed to establish the following:-

- authorship
 - University Physiotherapy Department staff member as first author only.
 - University Physiotherapy Department student member as first author only.
 - Non-university Physiotherapy Department member. This category includes physiotherapists, medical doctors/dentists, other members of the allied medical disciplines such as

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TABLE I : PAPERS FROM UNIVERSITY PHYSIOTHERAPY DEPARTMENTS 1984 - 1988

| CENTRE | 1984 | | 1985 | | 1986 | | 1987 | | 1988 | | TOTAL |
|-------------------|------|---|------|---|------|---|------|---|------|---|-------|
| | S | s | S | s | S | s | S | s | S | s | |
| DURBAN-WESTVILLE | 2 | | 1 | | 1 | | | | 1 | | 5 |
| MEDUNSA | | | 1 | | | | | | | | 1 |
| ORANGE FREE STATE | | | 3 | | | | | | | | 3 |
| PRETORIA | | | | | | | | | | | - |
| STELLENBOSCH | 1 | | 1 | 1 | 1 | | 2 | | 2 | 2 | 10 |
| CAPE TOWN | | | | | 2 | | 1 | | 1 | | 4 |
| WESTERN-CAPE | | | | | | | | | | | - |
| WITWATERSRAND | 1 | | | | 1 | | | | | | 2 |
| TOTAL | 4 | - | 6 | 1 | 5 | - | 2 | 1 | 4 | 2 | 25 |

KEYS:

SUBJECT OF PAPER:

AUTHORSHIP:

S = Staff Member
s = Student

Apl = applied basic science
C-P = cardio-pulmonary system/therapy (4)
Ed = education/administration (9)
E-Q = electrotherapy/equipment (4)
G = geriatric therapy/factors (1)

M-S = musculo-skeletal system/therapy (3)
N = neurology (3)
P = paediatric therapy/factors (1)
P-S = psycho-social factors
O = other

TYPE OF PAPER:
C = clinical (3)
D = descriptive (18)
E = experimental (4)

TABLE II : CLASSIFICATION OF PAPERS FROM UNIVERSITY PHYSIOTHERAPY DEPARTMENTS

| CENTRE | SUBJECT | | | | | | | | TOTAL | | | | | | |
|-------------------|---------|---|----|---|-----|---|-----|---|-------|---|---|---|----|---|----|
| | C-P | | Ed | | E-Q | | M-S | | | N | | P | | | |
| | S | s | S | s | S | s | S | s | | S | s | S | s | | |
| DURBAN WESTVILLE | D | | | | | | | | | | | | 5 | | |
| MEDUNSA | | | D | | | | | | | | | | 1 | | |
| ORANGE FREE STATE | | | D | | | | | | | | | | 3 | | |
| PRETORIA | | | | | | | | | | | | | - | | |
| STELLENBOSCH | | | D | | C | C | | D | E | D | D | D | 10 | | |
| CAPE TOWN | | | D | | | E | | D | | | | | 4 | | |
| WESTERN CAPE | | | | | | | | | | | | | - | | |
| WITWATERSRAND | | | D | | | | C | | | | | | 2 | | |
| TOTAL | 4 | - | 9 | - | 1 | 3 | 1 | - | 2 | 1 | 3 | - | 1 | - | 25 |

occupational or speech therapists, social workers and psychologists, and authors with other qualifications, such as engineers or scientists, all as first authors. Authors whose qualifications were unspecified were excluded.

- **subject**

Articles are classified into one of 10 broad subject areas, as follows:-

- applied/basic science (Apl) e.g. anatomy
- cardio-pulmonary system/therapy (C-P)
- education/administration (Ed)
- electrotherapy/equipment (E-Q)
- geriatric therapy/factors (G)
- musculo-skeletal system/therapy (M-S)
- neurology (N)
- paediatric therapy/factors (P)
- psycho-social factors (P-S)
- other e.g. community/industrial or occupational therapy (OT) (O).

- **type**

This classification refers to research methodology. The four types used were:-

- descriptive i.e. involving a description of a technique, case history or basic principles (D)
- experimental i.e. involving an experimental design or a controlled laboratory setting (E)
- clinical i.e. involving a clinical study or a comparison between two or more therapeutic methods/techniques (C)
- survey i.e. involving a retrospective study with/without the use of a questionnaire (S).

RESULTS

Classification of all authors

Over the five year period (1984 to 1988), there were 81 first authors (classifiable in this study) of major articles in the *South African Journal of Physiotherapy*.

Of these authors, 24 (29,6%) were members of the University Physiotherapy Departments : 20 staff members and 4 students, all as first authors. Of the remaining 57 authors, 23 (40,4%) were physiotherapists employed in private practice or hospitals; 15 (26,3%) were doctors/dentists; 6 (10,5%) were other members of the allied medical disciplines; 7 (12,3%) were other professionals such as engineers or scientists, and 6 (10,5%) were authors with unspecified qualifications and were excluded.

Classification of all papers

Eighty-one major papers were published in the *South African Journal of Physiotherapy* during this five-year period (1984 to 1988), of which 25 (30,9%) articles were produced by the University Physiotherapy Departments : 24 of these having either a staff or student member as first author (21 and 3 respectively) and the one other paper having a doctor as first author and a staff member as third author. This paper has been included in the analysis of the University Physiotherapy Department papers.

Fifty-six (69,1%) papers were written by non-university Physiotherapy Department authors. Forty-three (76,8%) of these articles were descriptive; seven (12,5%) were reports of

experimental trials and one (1,8%) of a clinical trial, while five (8,9%) were surveys.

Sixty-one of the total 81 papers (75,3%) were of the descriptive type, while 11 (13,6%), five (6,2%) and four (4,9%) were of the experimental, survey and clinical types respectively. In eight (9,9%) of these papers (1 survey and 7 experimental studies) statistical analyses of data were used. The most common research topic was education/administration (15 or 18,5% of the papers), followed by the musculo-skeletal system/therapy (13 or 16,0% of the papers), then the cardio-pulmonary system/therapy (11 or 13,5% of the papers). The least popular topics were the applied basic sciences, geriatric therapy/factors and psycho-social subjects (each 3 or 3,7% of the papers).

Papers from University Physiotherapy Departments.

Twenty-one (84,0%) of the 25 papers were published by staff members of the University Physiotherapy Departments and four (16,0%) by students (Table I). Three of the four student papers were from the University of Stellenbosch. Most articles were published in 1985 (7 out of 25). Over the five year period, the Physiotherapy Department of the University of Stellenbosch published the most articles (10), followed by Durban-Westville (5), Cape Town (4), Orange Free State (3), Wits (2) and Medunsa (1). Neither Pretoria nor the Western Cape (the newest Department) published in the Journal during these five years.

Table II shows a breakdown of these 25 papers, according to Physiotherapy Department, staff or student authorship, subject and type of article. The majority of papers were again of the descriptive type (18), followed by experimental (4) and clinical (3). No surveys were reported during this time and none of the authors used statistical analyses. The most popular topic was education/administration (9 papers), followed by the cardio-pulmonary system/factors and electrotherapy/equipment (4 each), the musculo-skeletal system/factors and neurology (3 each). The remaining two papers were concerned with paediatric and geriatric therapy/factors.

DISCUSSION

This analysis is based on research published over a five year period (1984 - 1988) in the *South African Journal of Physiotherapy* only. Therefore, the results may not reflect current research interest, or all research published.

The results of this survey confirm that publishable research is being conducted by most of the University Physiotherapy Departments. Moreover, this analysis suggests that the majority of this research (84,0% of the 25 papers published between 1984 and 1988) is carried out by the academic staff and not by the students. Only four (4,9%) of the total of 81 articles published in the *South African Journal of Physiotherapy* during this time involved student research projects.

More research is being published by authors not connected with these University Departments, (56:25 papers or a 2:1 ratio), although almost half (41,1%) of these papers were written by physiotherapists.

Most of the papers (75,3%) are descriptive rather than involving experimental or clinical trials and, therefore, cannot generally be classified as reports of "new knowledge" gained by scientifically organised trials. It is of interest to note that

two recent papers published by Stellenbosch, in 1988, report on a clinical and an experimental trial. This suggests an awareness of the need for more scientific research and its publication.

Many of the papers published over the last five years, particularly by the University Departments, are related to education/administration (36,0%). This bias may reflect concern for the standards of education of our students, the appropriateness of subjects taught and the upgrading or curricula.

CONCLUSIONS

This survey suggests that more research from the University Physiotherapy Departments could be submitted to

the *South African Journal of Physiotherapy* for publication. In addition, more scientific trials related to physiotherapy are needed. It is understood that such research may be published elsewhere, a factor which was not covered in this survey. However, the use of the Journal as the main medium for communication of research findings would enhance its scientific standing and that of the profession of physiotherapy in South Africa.

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