

# Psychiatric research in South Africa : a systematic review of Medline publications

J Fourie, Department of Psychiatry, University of Stellenbosch

AJ Flisher, Department of Psychiatry, University of Cape Town

RA Emsley, Department of Psychiatry, University of Stellenbosch

DJ Stein, Department of Psychiatry, University of Stellenbosch

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## Abstract Background

There is debate about the future path that medical and psychiatric research in South Africa should take. In particular, there have been calls to make research more relevant to the needs of the population. There is, however, little systematically collected data on the nature, strengths, and flaws of past psychiatric research in this country.

## Methods

We undertook a MEDLINE search to gather all manuscripts that fell under the umbrella of psychiatric research and published by South Africa-based authors during the years 1966-1997. Several kinds of data were collated from

each of the articles, including information about the authors and the journal, as well as information on the focus and type of article.

## Results

While publications from South Africa continue to grow in number, relatively few involve collaborative research groups and few authors write more than one paper. Many papers relevant to psychiatry were published in general medical journals and many were from general medical departments. While blacks and females have been included in research, a number of important areas have received little attention.

## Conclusions

Psychiatry research in South Africa requires additional fostering, including additional resources for research training and arguably additional development of subspecialty focuses. Given the limited resources, and the nature of modern research, increased emphasis on collaboration seems advisable. A number of areas in psychiatry deserve particular attention from future researchers.

## Introduction

The optimal path of future medical and psychiatric research in the new South Africa has received some debate. On the one hand, there are those who argue that past "high-tech" research is no longer needed in South Africa (Van Rensburg 1996). On the other hand, an argument can be made that there has been a relative lack of skilled psychiatric research in the past, and that this correlates with gaps in our knowledge of how to diagnose and treat highly prevalent psychiatric and substance abuse disorders in our communities (Stein & Emsley 1996).

Clearly, throughout the world research proposals are increasingly being viewed within the context of national objectives and priorities (Kirschner et al., 1994). We and others have argued that advanced and innovative psychiatric research in the fields of epidemiology, diagnosis, psychotherapy, and psychopharmacology, among other areas, is of paramount importance for facilitating and strengthening the goals put forward in recent national health care policy documents (Stein & Emsley 1995, Taljaard & Parry 1996).

There is, however, little systematically collected data on the

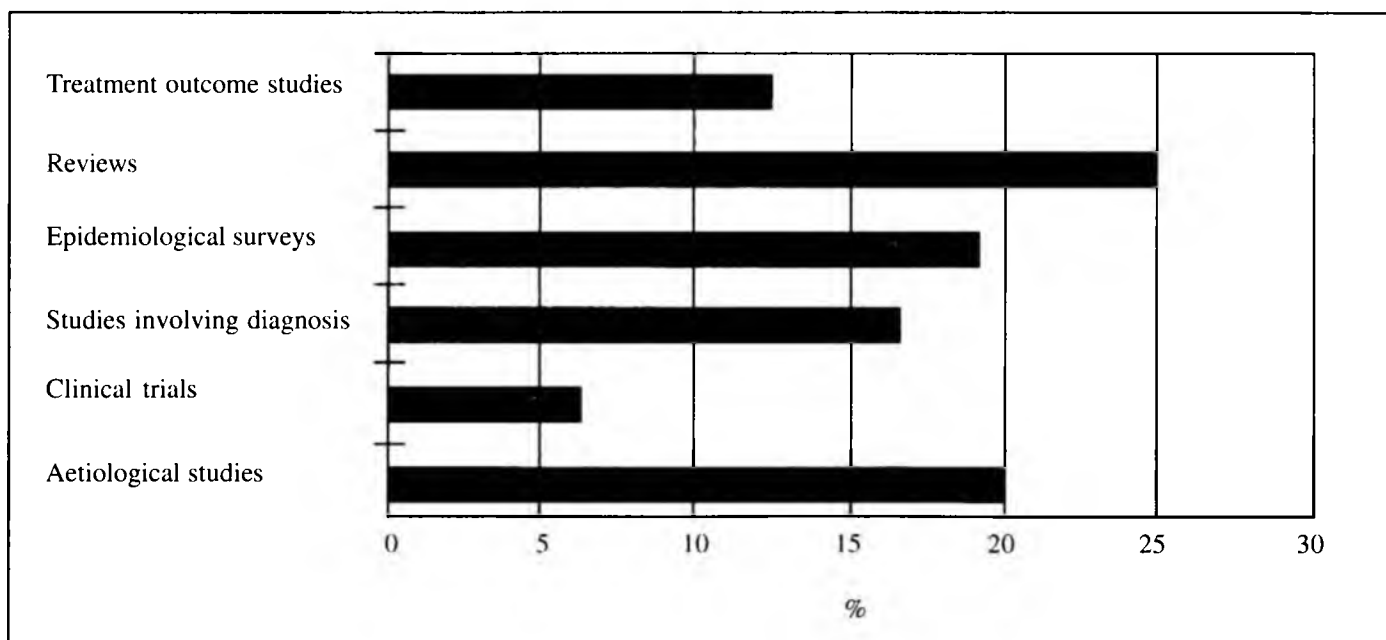
nature, strengths, and flaws of past psychiatric research in this country. The aim of the study was to address this gap by reviewing psychiatric research conducted by South Africans in the period 1966 – 1997. Specifically, we addressed aspects such as publication date, author characteristics, journal type, population studied and type of study.

## Methods

A MEDLINE search (1966-1997) was undertaken. A first set of articles was collated by using the key words, "South Africa, Psychology, Mental Disorders, or Psychometrics". A second set of abstracts was collated by using 187 key words from the two main diagnostic classification systems used in psychiatry, the DSM-IV and ICD-10, together with MEDLINE "Mesh-headings". The two sets of articles were then combined.

2456 abstracts were found, of which 927 were judged to fall under the umbrella of psychiatric research. The following variables were then tabulated: 1) publication date; 2) author

**Figure 1 : Content of articles**



characteristics (number of authors, author specialty); 3) journal type (general vs psychiatric), country, and language; 4) population studied (racial group, gender, age, diagnosis); and 5) type of study (review, randomized controlled trial, etc). We are aware of the recent controversy concerning the use of race as a variable in medical research (Ellison et al., 1996), but argue that racial categorizations may yield useful data, provided that their conceptual limitations are fully acknowledged and appreciated.

## Results

### Authorship and Journal Details

During the period 1966-1979, 250 (27%) articles were published; during the period 1980-1989, 139 (15%) articles were published; and during the period 1990-1997, 519 (56%) articles appeared. Thus more articles were published in the past seven years than in the previous twenty-four years combined. Mean number of authors per article was 1.49; 40% of the articles were published by a single author, with 35% published by two authors. 79% of authors had published only once. 51% of the articles were written by authors from medical departments other than psychiatry (e.g. paediatricians studying learning disorders, gynaecologists researching post-partum mood). Publications were almost equally distributed between general medical journals (47%) and psychiatric journals (53%). 32% of all articles appeared in the South African Medical Journal, with other publications often cited being *Curationis* (5%), *Psychological Reports* (4%), and *Nursing RSA* (3%). While articles were published in 23 different countries, most appeared in South Africa (45%), followed by the USA (24%) and the UK (18%). 98% of authors used English to publish their work in while 2% used Afrikaans. A single article was written in each of the following languages: Dutch, German and Polish.

### Focus and Type of Article

Most articles did not refer to race groups (69%), but where race was mentioned groups were most often mixed (81%) or

black (18%). In 42% of the articles gender was not referenced; the remainder of the articles focused on both genders (42%), males only (8%), or females only (9%). Age was not referenced in 29% of publications; the remainder of the articles focused on adults (27%), children (18%), the elderly (2%), or a mixture of age groups (24%).

Psychiatric symptoms and diagnoses that were the focus of papers included mental disorders in general (25%), substance use disorders (16%), anxiety disorders and stress (9%), cognitive disorders (7%), mood disorders (6%), and psychotic disorders (4%). Within substance abuse 67% of the articles focused on alcohol, and 12% on cannabis, with methaqualone receiving little attention. Within the anxiety disorders and stress category, 65% of the articles dealt with "stress", while only 2% focused on posttraumatic stress disorder. Within the cognitive disorders category, Huntington's disorder received a good deal of attention (31%), while few articles focused on AIDS (6%).

The largest number of papers were reviews (Figure 1). The treatment most frequently studied was pharmacotherapy, which was addressed in 83% of the papers involving treatment.

## Conclusions

Major findings of this study were: 1) Despite the growing number of publications from South Africa, few involve collaborative groups and conversely few authors write more than one paper; 2) Many papers related to psychiatry are from general medical departments and appear in general medical journals; and 3) Black and female subjects have been included in psychiatric studies, but a number of important topics within psychiatry have received very little attention.

A number of limitations to this study need to be stressed. Most importantly, no attempt was made to find unpublished articles or articles abstracted in non-MEDLINE databases. It is also possible that our MEDLINE search strategy, although very comprehensive, missed some articles. Nevertheless, there is no obvious reason to believe that the inclusion of such articles would have materially changed the findings here. Also, individual articles were not read in their entirety; rather they

were classified on the basis of the abstract, which may have resulted in some errors. Finally, articles written prior to the DSM-III were at times difficult to categorize using current nosology.

The fact that relatively few authors have authored more than one paper points perhaps to insufficient development and maintenance of research skills. Registrars are frequently required to publish one paper during their training, but after registrarship there are no formal fellowships in psychiatry research in South Africa. Given data showing that mentorship is a crucial predictor of academic productivity in psychiatry (Pincus et al., 1995), this is worrisome.

Exposure to the theory and practice of scientific research during undergraduate training, as well as post-qualification research training and mentorship, are needed to encourage continued publication by young researchers.

In the same vein, most authors appear to work on their own; there is a lack of collaborative research groups. Such collaboration requires careful fostering if we are to compete with ongoing large-scale research endeavours in other countries. While publications have to some extent increased over the past decade, this increase needs to be measured against an exponential expansion of psychiatry research in the world as a whole.

Approximately half the articles collated in this search were published in general medical journals, and approximately half were written by authors from general medical departments. While these findings perhaps point to strong ties between medicine and psychiatry, the data may also be interpreted as again reflecting the lack of development of psychiatry research as a unique and specialized area.

In line with the findings of others (Hoosain et al., 1998), psychiatric research in South Africa was found to be predominantly "gender blind"; additional attention to gender specific aspects of psychiatry may well be useful. The lack of work on the elderly also requires remediation.

Specific areas requiring particular attention in the future include: 1) diagnoses such as posttraumatic stress disorder, methaqualone and new kinds of drug abuse, and HIV infection; and 2) psychosocial issues such as violence and poverty. Furthermore, there have been relatively few randomized controlled trials, with particularly little attention to randomized psychotherapy treatments.

A number of other areas of psychiatric research demand attention in the future (Stein & Emsley 1995, Taljaard & Parry 1996, Flisher et al., 2000). There is no nation-wide epidemiological survey of mental disorders in South Africa. Few studies have specifically addressed the question of whether diagnostic criteria developed in other parts of the world are relevant to our populations. Also, bearing in mind current emphases on biological rather than cultural differences in psychiatry, it is striking to note that almost no work has been undertaken on the pharmacogenetics or behavioural genetics in our interesting homogenous South African black and white communities.

We have previously argued that the need to develop and foster psychiatry research in South Africa is of paramount importance (Stein & Emsley 1995). While the current focus on strategies for improving clinical services is invaluable, the need to also improve research in the new South Africa must not be overlooked (Blecher & McIntyre 1995).

Advanced and innovative psychiatric research in the fields of epidemiology, diagnosis, psychotherapy, and psychophar-

macology, among other areas, is important for facilitating and strengthening the goals put forward in recent national health care policy documents (African National Congress 1994).

## References

**AFRICAN NATIONAL CONGRESS.** The Reconstruction and Development Programme - A Policy Framework. Johannesburg: Umanyano Publications, 1994.

**BLECHER MS & MCINTYRE D 1995 :** Expenditure on health research in South Africa, 1991/1992. *S Afr Med J* 1995: 365-370.

**ELLISON GT; DE WET T; IJSSELMUIDEN CB & RICHTER LM 1996 :** Desegregating health statistics and health research in South Africa. *S Afr Med J* 1996:1257-1262.

**FLISHER AJ; PARRY CDH & STEIN D 2000 :** To what extent does South African mental health research address priority issues? *S Afr Med J* 2000:378-380.

**HOOSAIN M; JEWKES R & MAPHUMULO S 1998 :** Gender audit of health research - 10 years of the South African Medical Journal. *S Afr Med J* 1998:982.

**KIRSCHNER MW; MARINCOLA E & TEISBERG EO 1994 :** The role of biomedical research in health care reform. *Science*.

**PINCUS HA; HAVILAND MG; DIAL TH & HENDRYX MS 1995 :** The relationship of postdoctoral research training to current research activities of faculty in academic departments of psychiatry. *Am J Psychiatry* 1995:596-60.

**STEIN DJ & EMSLEY RA 1995 :** Psychiatric research in the new South Africa. *S Afr Med J* 1995:1365-1366.

**STEIN DJ & EMSLEY RA 1996 :** A psychiatric perspective on medical research in South Africa. *S Afr Med J* 1996:983-984.

**TALJAARD F & PARRY C 1996 :** Mental Health and Substance Abuse Research Thrust Business Plan. Cape Town: Medical Research Council.

**VAN RENSBURG HCJ 1996 :** Can we support high-tech research in South Africa? *S Afr Med J* 1996:516-521.

