

# UNIVERSITY OF KWAZULU-NATAL

REPORTING OF RESEARCH ETHICS COMMITTEE APPROVAL AND PARTICIPANT CONSENT IN SOUTH  
AFRICAN BIOMEDICAL JOURNAL ARTICLES (2007-2018)

By

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## DECLARATION

I, Arthur Khonzani Nzuza, declare that

1. The research reported in this dissertation, except where otherwise indicated, is my original research.
2. This dissertation has not been submitted for any degree or examination at any other university.
3. This dissertation does not contain any other person's writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
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## ABSTRACT

The commencement of a study involving human participants may only happen when the study has been approved by a registered research ethics committee and when consent of participants has been obtained. Most biomedical journals require confirmation of this requirement by authors in their publication of research results, not just as a mere formality, but as a culmination of a long process and careful attention to every step and detail in the process.

This is an ethical requirement that guides researchers throughout the world. For example, the Declaration of Helsinki (2013), despite its numerous revisions and adjustments, is clear on this point, as are current South African ethics guidelines (Department of Health, 2015). The issue of obtaining informed consent from prospective participants does not just lead to the signing of the document but should also reflect that all processes that are meant to safeguard rights of prospective participants are not compromised in any way. Publishing authors are expected to report those details in their articles but the frequency of such reporting in South African health research articles remains unclear.

Reporting and publication of studies in peer-reviewed journal articles, does not only communicate findings of the study but it is also a source of information for judging the ethical quality of the study. Publications are assessed by various audiences such as peer researchers, sponsors, policy makers and industry practitioners. All these audiences apply different criteria in assessing the information, as some material might be considered less significant than others, depending on the needs of the audience. This factor should be taken into consideration during article reviews.

The study is aimed at exploring whether authors of South African biomedical journal articles mention research ethics approval and informed consent in their research publications and explores whether there were any temporal changes in such reporting between 2007 and 2018.

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# CHAPTER ONE

## INTRODUCTION

### Introduction and overview

The term ethics (which is derived from the Greek word “ethos”) refers to moral standards of knowing right and wrong and inclining one’s activities to what is right.

The introduction of ethical conduct to human research studies can be traced back to the 1940s when the abuse of human participants was noticed in the experiments that were conducted by Nazi doctors on politically incarcerated citizens. This resulted in the formation of what became known as the Nuremberg Code in 1947. Its main purpose was to ensure protection of human participants in studies (Jain et al., 2017).

In October 2013 the World Medical Association approved the Declaration of Helsinki, which was adopted in 1964, to guide and inform conduct of researchers, authors, editors, and publishers of biomedical research for the protection of research participants all over the world (World Medical Association (WMA) – Declaration of Helsinki, 2013).

The Declaration of Helsinki consisted of 32 principles that were focused on informed consent, confidentiality, vulnerable people, and requirement of a research protocol stating a scientific rationale of the study which needs to be authorised and reviewed by a recognised research ethics committee.

At a later stage the American National Commission for the Protection of Human Subjects of Biomedical and Behavioural Research was introduced in 1974 as a response and a reaction to the infamous American scandal – the Syphilis study of 1972. The commission (mentioned above) drafted the Belmont Report which contained a set of ethical principles and guidelines for the protection of human subjects of research (Jain et al., 2017).

In South Africa, the Department of Health’s official research ethics guidelines, binds all health-related biomedical and social science research in South Africa (Department of Health, 2015). These guidelines are aligned with the Declaration of Helsinki as a statement of ethical principles that govern the undertaking of medical research involving human research participants. At the centre of human subject protection are two ethical requirements: research ethics committee approval and informed consent. This suggests that for a study to take place every protocol must be approved by a registered research ethics committee and informed consent must be obtained from each participant before the commencement of the study - except in those cases where secondary data from already approved studies, or studies of reports and records are used.

Regarding publication of research papers, the Declaration of Helsinki obligates researchers, authors, editors, and publishers not to accept papers that do not meet requirements of the Declaration. It is against this backdrop that this study is being undertaken to establish whether South African journal articles report the protection of research participants.

## Outlining Ethical Requirements for Human Participation in Research

The fulfilment of ethical requirements in research involving human participants is informed by application of research rules and guidelines to ensure sound quality of studies undertaken. These are usefully summarised by Emanuel et al. (2004) as:

- Collaborative partnership
- Social Value
- Scientific validity
- Fair participant selection
- Favourable risk/benefit ratio
- Independent ethics review
- Informed consent
- Ongoing respect for participants

and are more fully described in Chapter 2 below.

Ethical norms related to biomedical research and publications are laid down by various national and international agencies such as the Nuremberg Code and Declaration of Helsinki of the World Medical Association. All of these strive to ensure that ethical standards are followed the world over and that uniform requirements are met not only during research but also in manuscripts submitted to biomedical journals.

The study is a retrospective review of published South African journals from 2007–2018, examining whether the two research ethics requirements mentioned above are mentioned in published papers. All articles that are reviewed are original articles. All other publications, including case studies, were excluded from the study. A comparison of reporting of these ethical issues between 2007 and 2018 will also be conducted.

### Aim of the study

This study aims to determine whether, and to what extent, authors of various South African biomedical research journal articles mention the following two research ethics requirements: research ethics committee approval and informed consent in the period specified above.

Reporting and publication of studies in journal articles, does not only communicate findings of the study but it is also a source of information for judging the ethical quality of the study. Publications are assessed by various audiences, such as peer researchers, sponsors, policy makers and industry practitioners. All these audiences apply different criteria in assessing the information, as some material might be considered less significant and not worthy of publication, depending on the needs of the audience. This factor should be taken into consideration during article reviews.

## Objectives of the Study

Objectives of the study are as follow:

To establish whether authors mention research ethics clearance by relevant research ethics committees.

To seek possible trends in mentioning of the two variables in the during the period (2007 to 2018).

To compare these South African data with similar data from other countries with regard to mentioning of the two variables of interest.

## Research Questions

The study answered the following research questions:

*Question pertaining to reporting ethics approval:*

What proportion of South African biomedical research articles published from 2007 to 2018 mention research ethics committee approval?

*Question pertaining to reporting participant consent:*

What proportion of South African biomedical research articles from 2007 to 2018 mention informed consent?

*Additional questions regarding trends over time:*

Is there a change in reporting of research ethics approval between 2007 and 2018?

Is there a change in reporting of informed consent between 2007 and 2018?

## Justification of the study

It is hoped that answering the above-mentioned questions will inform the research community and users of what has happened during the specified period, regarding the extent to which South African articles have mentioned the two ethical requirements. This will establish the extent to which adherence with the above-mentioned ethical requirements is expressed in publications and might inform relevant interventions to be made to ensure that proper procedures are implemented to improve the level of reporting. These data, for example, could inform journal editors whether more stringent reporting practices need to be implemented for the reporting of these two ethical issues. Similarly, the data could be used to inform biomedical researchers during their training so that they report these issues routinely when publishing their research.

Researchers and authors are required to show respect for study participants and ensure protection of research participants' privacy and best interests (Emanuel et al., 2004).

From a South African perspective, national guidelines (DoH, 2015) stipulate that informed consent should be obtained and that a registered research ethics committee review such requests for ethical clearance. It is against this backdrop that the current study is set.



World Medical Association developed and adopted the Declaration of Helsinki – Ethical principles for medical research involving human subjects in 1964 as a statement of ethical principles for medical research involving human subjects to guide and inform conduct of researchers, authors, editors and publishers of biomedical research with the protection of research participants all over the world. The Declaration was amended several times and most recently in October 2013. The current one (2013) is the official one as it replaces all previous versions.

In South Africa the Department of Health's official research ethics guideline, binding on all health-related biomedical and social science research in South Africa (Department of Health, 2015) aligns with the Declaration of Helsinki as a statement of ethical principles that governs the undertaking of medical research involving human research participants. At the centre of human subject protection are two ethical requirements: research ethics committee approval and informed consent. This suggests that for a study to take place every protocol must be approved by a registered research ethics committee and informed consent must be obtained from each participant before the commencement of the study.

Regarding publication of research papers, the Declaration of Helsinki obligates researchers, authors, editors and publishers not to accept papers that do not meet requirements of the Declaration. It is against this backdrop that this study is being undertaken to establish whether South African journal articles report the protection of research participants.

The study is a retrospective review of published South African journals from 2007–2018 on whether the two ethics requirements mentioned above are mentioned in reports. All articles that are reviewed are original articles. All other publications, including case studies, were excluded from the study. A comparison of reporting of these ethical issues between 2007 and 2018 will also be conducted.

The study did not require research ethics committee approval as it did not involve human participants and reports on data already in the public domain. Descriptive statistics are used to report results. The ratio of articles reporting research ethics committee approval and informed consent is expressed in figures and percentages in the Results chapter.

## CHAPTER TWO

### LITERATURE REVIEW

The process of infusing ethics in South African biomedical research started to unfold as early as 1966 when Beecher published an article in the *New England Journal of Medicine* (Cleaton-Jones & Wassenaar, 2010). This article was so influential that it resulted in John Hansen, who was a professor of Paediatrics at the University of Witwatersrand, establishing the first Research Ethics Committee (REC) in the Medical Faculty. The REC carried out research ethics and review activities since then. From 1977 onwards other Universities in South Africa, the Department of Health (DOH), the Human Sciences Research Council (HSRC), the Medical Research Council (MRC), pharmaceutical companies, the South African Medical Association and certain Hospitals followed suite and RECs were formed all over the country (Cleaton-Jones & Wassenaar, 2010).

These developments were in line with what was happening in other developed countries of the world. For example, in the USA the National Institutes of Health formed what they called Institutional Review Boards (IRBs) after the publication of the Belmont Report in 1979.

Above mentioned developments culminated in the entrenchment of research ethics pertaining to the protection of human research participants as one of the cornerstones of the Bill of Rights that are enshrined in the Constitution of the Republic of South Africa, 1996 (Cleaton-Jones & Wassenaar, 2010).

South African health legislation requires that all research be undertaken and reviewed by an REC which is registered with the National Health Research Ethics Council (NHREC). The NHREC audits the REC for composition, structure, and compliance. This is done according to principles and requirements of Emanuel et al. (2004).

The Emanuel et al. (2004), framework, based on an analysis of major international research ethics guidelines, sets out key principles and requirements of what is regarded as good research practice. This document is widely used to analyse important issues that confront REC deliberations internationally, including within the African context (Tsoka-Gwegweni & Wassenaar, 2014).

The Emanuel et al. (2004) framework consists of eight (8) principles that are regarded as universal and applicable to all settings and contexts of research involving human participants and two of this form the core of this research. These are: authorisation of the research by a credible REC; and obtaining informed consent from prospective participants prior to and during the progression of the study. These are to be discussed in more detail after addressing the initial six principles.

Other principles contained in the document as summarised by Tsoka-Gwegweni and Wassenaar (2014) are the following:

*Collaborative partnership* – emphasises the importance of a professional relationship between researchers and community representatives in all stages of the research.

*Social value* – ensures that the research undertaking is beneficial to all intended beneficiaries and stakeholders.

*Scientific validity* – requires researchers to use reliable and valid research designs and methods.

*Fair participant selection* – ensures that the selection process is transparent and is based on sound research principles and processes, while providing subjects, including vulnerable groups, with benefits and protection.

*A favourable risk-benefit ratio* – requires identification and minimisation of all forms of potential risks to participants; quantification of all types of benefits; balancing the potential risk and benefits to the participants.

*Independent ethics review*- Properly constituted and regulated Research Ethics Committees (RECs) are responsible for ensuring that standard operating procedures are adhered to, hence they should be independent from external interference and influence. REC members must be properly qualified and equipped to act on their responsibilities.

*Informed consent* – requires that voluntary participation of intended subjects, structures and community be assured before the research can begin. Both written and verbal informed consent must be obtained unless there are good reasons to the contrary, such as in emergency situations. Informed consent means that a participant has been informed about risks and benefits of the research, understands such risks and benefits and is able to give consent to participation without coercion, undue influence, or inappropriate incentives. Prospective participants should be helped to arrive at an informed decision by, for instance, use of appropriate language.

*Ongoing respect for participants* – ensures that participants are free to decide whether to take part or not to take part or even discontinue their participation when they feel threatened in any way.

Medical and health-related scientific journals, for example, that report on HIV/ Aids research in South Africa have been scrutinised, not only in Africa but in other parts of the world, to ensure that communities are informed of research developments (Slack & Kruger, 2005). Currently it would appear that in Africa not much has happened in interrogating whether and how frequently authors of published papers report on research ethics approval and informed consent despite extensive research that is being undertaken on the continent. This scenario does not imply that studies are conducted without research ethics approval and without obtaining informed consent from participants. It simply means that the proportion of South African research papers mentioning these requirements remains unknown, hence the reason for this study. This question shapes the study that is reported in the sections that follow.

In 1999 a study was undertaken to assess and outline the frequency of reporting informed consent and research ethics approval on trials that were published between 1993 and 1995 in five international journals (Ruiz-Carnela, 1999). These journals were: *Annals of International Medicine*, *New England Journal of Medicine*, *The Lancet*, and *Journal of the American Medical Association* and the *British Medical Journal*. This article reported that from 767 clinical trials that were reviewed 543 (70,8%) stated that an IRB had approved the research and 612 (79,9%) reported that informed consent had been requested from participants. Both types of information were included in 64% of the reports.

Bauchner and Sharfstein (2001) investigated how often research publications on child health reported on research ethics approval. All reports pertaining to child health below 18 years of age were reviewed, and these were drawn from: *JAMA*, *New England Journal of Medicine*, *Paediatrics*, *Journal of Paediatrics*, *Archives of Paediatrics and Adolescent Medicine*. A total number of 561 research papers were reviewed and of these 60% reported ethical approval while 40 % did not report ethical approval. These findings were unexpected as all journals enlisted above were explicit to authors regarding the documentation of research ethics approval.

Another study was undertaken to assess frequency of reporting research ethics approval and informed consent in trials that were published in: *New England Journal of Medicine*, *The Lancet*, *Journal of the American Medical Association*, and the *British Medical Journal* between 1993 and 1995. In this study 767 reports were reviewed. Out of this number 543 (70,8%) stated that Institutional Review Boards (IRBs) had approved the research, and 612 (79,8%) had reported that informed consent was requested from participants. 64% of the report reflected that both types of information had been incorporated in reports (Ruiz-Canella & Martinez-Gonzales, 1999).

Bauchner and Sharfstein (2001) reported that more than five hundred journals had adopted the uniform requirement of the International Committee of Medical Journal Editors which stipulates that author should indicate whether procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (Bauchner & Sharfstein, 2001). They then investigated how often research publications on children younger than 18 years of age had reported on the two variables (research ethics committee approval or informed consent). They found that health researchers had indeed reported on these variables. Their study involved reviewing all reports related to child health (<18 years), pregnant women and clinicians providing care to children (*JAMA*, *New England Journal of Medicine*, *Paediatrics*, *Journal of Paediatrics*, *Archives of Paediatrics and Adolescent Medicine*). Journals contained 561 reports related to child health, 60% of which had ethics approval and 40% did not report ethics approval. These findings were unexpected given the fact that journals reviewed explicitly asked authors to document such approval.

In 2002 Yank and Rennie reported on a study that they had undertaken to determine whether journals had improved their ethical disclosure in clinical trials. They compared clinical trials that were published before and after 1997 (Yank & Rennie, 2002). The study revealed that informed consent was not described in 26% of articles published before 1997 versus 18% of those published after 1997. Research ethics approval was not mentioned in 31% before 1997 and 18% after 1997. Neither protection was described in 16% published before 1997 versus 9% published after 1997. These results reflected an improvement of about 9% in the reporting of informed consent and research ethics committee approval in medical journals. This indicated that the reporting of these two ethical issues seemed to be improving with the progression of time.

In 2004 Emanuel et al. published a framework to minimise exploitation of research population when doing research in developing countries. This framework was aimed at addressing issues that often impact on a population's ability to embrace ethics requirements, like informed consent. Issues that often lead to exploitation of research subjects and research population include illiteracy, cultural and linguistic differences, and limited understanding of scientific research. The framework highlighted practices like fair selection of study population, assessing potential risks and benefits to the study population, and independent review to ensure accountability and transparency in doing research (Emanuel et al., 2004).

It has been noted that efforts to interrogate the extent to which protection of research participants, including vulnerable populations, in research publications continued after 2005.

One such study was published in 2006 reviewed whether research ethics approval and participant consent were mentioned in a series of papers that were published in five major journals between February and May 2003 (Schroter et al., 2006). Journals that were studied were: *Annals of Internal Medicine*, *BMJ*, *JAMA*, *Lancet* and *The New England Journal of Medicine* between February and May 2003. It was reported that both ethics requirements were not mentioned in 31% and 47% of published articles, respectively. This showed that despite some improvement 27% of journals were still lagging in reporting standard ethics requirements.

A similar study was undertaken in Sri Lanka in 2008. The study was aimed at finding out what ethical procedures were reported in studies that were conducted on Sri Lankan participants, both locally and internationally (Sumathipala et al., 2008). The study scrutinised theses of post-graduate medical students from 1985–2005. The review was based on checklists agreed upon with senior research collaborators. The results showed that 34% had documented approval and 61% had documented obtaining informed consent. It was concluded from the study that there was a positive trend in documenting ethical requirements in local post-graduate research and in the local medical journals.

In the same year (2008) Rab et al. published an article on a study that explored the extent to which researchers from countries in the Eastern Mediterranean (EM) region were adhering to ethical practices in the conduct of their research. Results of the study suggested that investigators of the EM region were not doing well in adhering to ethical practices and suggestions were made towards strengthening ethics review systems and conducting educational training for investigators in research ethics.

In 2011 Lawrence published an article where he reviewed reporting of research ethics approval and informed consent in three chiropractic journals. Articles published in 2008 were assessed. The study concluded that most articles reported research ethics approval, and more than half reported informed consent, and this warranted continued quality improvement and better instruction (Lawrence, 2011).

Jain et al. (2017) published a study on ethical issues and the infusion of ethics in psychiatric research in India. Issues that were explored in that study included informed consent, confidentiality, conflict of interest, therapeutic misconception, vulnerability, exploitation, and placebo. The paper raised concerns around application of ethics in Indian psychiatric research and made recommendations to deal with ethical challenges commonly faced in psychiatric research.

Silaigwana and Wassenaar (2019) published a study reporting perception of South African REC members on their aggregated ethics review outcomes. They conducted semi-structured interviews and perceptions with nine REC members from two research institutions in South Africa. All respondents concurred with the prioritisation of informed consent in the review outcomes emphasising the importance of the use of simple and understandable language for participants (Silaigwana & Wassenaar, 2019).

This chapter is comprised of articles that were undertaken to explore the subject of research ethics clearance and review, and protection of participants in research as reflected in research publications. The present study is meant to complement those studies, given the apparent scarcity of related data in Africa and South Africa in particular.

The following chapter outlines the methodology of the current study.

# CHAPTER THREE

## RESEARCH METHODOLOGY

### Background

This study comprised a desk review. It involved review of published articles in randomly selected South African biomedical and health-related journals. These articles are all in the public domain.

Published research papers were studied and separated according to journals that published them. Each paper was assessed for whether research ethics approval and informed consent were mentioned.

An online search was conducted using the search terms “South African/South Africa” in a selected sample of international health-related scientific journals, but some of these were not included in the study whose focus was on journals that were only published in South Africa.

Inclusion criteria: Biomedical empirical research articles reporting on health-related research reported in South African journals between 2007 and 2018.

Exclusion criteria: Papers that were not biomedical or health related, review papers, theoretical papers, editorials, papers that were deemed by the researcher and supervisor to be exempt from ethics review according to local and international ethics guidance; papers that fall outside the specified time frame; papers in journals that are not listed in *Web of Science* and that might be predatory were excluded.

Non-South African journals were also excluded from the study.

The search continued until five hundred suitable papers were accessed. The data were captured in a table with the following columns (see Appendix A).

Ethics Review and Informed consent reporting (Data capture table):

Journal	Author	Vol	Year	Pages	Ethics Review mentioned? Y/N	Informed consent mentioned? Y/N

The completed table had five hundred rows, each row representing one article and its scores (see Appendix B).

The final two columns were summed, capturing the total number of ‘Yes’ and ‘No’ scores in the sample of five hundred papers. These numbers were then converted into percentages. The data yielded easily accessible scores on how many South African health-research papers mentioned the two variables of interest for the period in question.

To determine whether any changes in reporting occurred over time, the data from 2007–2018 were compared for both variables.

Data will also be compared with other findings reported in the earlier literature review.

## Ethical issues

This study assesses information (published papers) that is already in the public domain. For this reason, ethics exemption was applied for and granted by the UKZN Biomedical Research Ethics Committee (BREC) (EXM 145.19) (see Appendix D).

## Validity and reliability

This Study involved review of existing material in published journal articles. The two variables being studied are self-evident and are recorded as to whether they are mentioned or not in each of the five hundred research articles that are studied. For this reason, it is assumed that there are no reliability issues. A reasonable cross-section of suitable health-related scientific journals was sampled for papers reporting South African research in the years 2007–2018.

The information table (Appendix A), containing Results should be dependable and valid because an extremely low level of interpretation is required to access and interpret the variables of interest.

## CHAPTER FOUR RESULTS

Five hundred research papers that met the inclusion criteria were published in 15 South African biomedical journals namely:

*South African Medical Journal*  
*South African Journal of HIV Medicine*  
*South African Journal of Psychiatry*  
*South African Journal of Critical Care*  
*South African Journal of Surgery*  
*South African Journal of Obstetrics and Gynaecology*  
*South African Journal of Gynaecological oncology*  
*South African Journal of Oncology*  
*South African Journal of Child Health*  
*South African Journal of Occupational Therapy*  
*South African Journal of Bioethics and Law*  
*Health South Africa Gesundheit*  
*Occupational Health Southern Africa*  
*South African Respiratory Journal*  
*South African Journal of Clinical Nutrition*

These journals were chosen randomly. Special consideration was paid to guidelines they set for prospective authors and publishing houses, based on the National Health Act No 61 of 2003 and South African national research ethics guidance (DoH, 2015). Most journals publish a checklist of ethics and authorship criteria which authors must sign prior to submitting their manuscripts. The checklist stipulates inclusion of proof that the study was approved by a REC. The *South African Journal of Anaesthesia and Analgesia* (SAJAA) for example, insists on a written confirmation of the protection of patients' right to privacy.

A full list of the papers accessed can be viewed in Appendix B.

**Reporting of Ethics approval:** Of 500 articles reviewed; there were 438 (87.6%) scored 'Yes' and 62 (12%) scored 'No'.

Phrases that featured in the reporting of ethics approval included:

- Ethical clearance was obtained or received from.....



- The study was cleared by.....
- The study was given a go ahead by.....

These phrases were considered to deserve a 'yes' as they clearly indicated approval of the commencement of the study by a recognised Research Ethics Committee.

**Reporting of informed consent:** Of 500 articles reviewed; there were 439 (87.8%) scored 'Yes' and 61 (12.2%) scored 'No'.

Phrases that were mostly used in reporting informed consent in reviewed articles were the following:

- Consent papers were signed.
- Consent was obtained.
- Subjects consented to participating in the study.
- Consent was received from subjects.

All these are accepted as 'Yes' as they confirm that participants consented to participation in the study.

### Comparison of both variables from 2007–2018

This study shows that out of twenty-six articles sampled from 2007, 11 articles failed to report on both variables. This constitutes 42.3%. In 2018, out of sixty-six articles sampled, 6 failed to report on both variables and this constitutes only 9% of published articles. Taken together, only 57,6% of sampled articles reported on both ethical issues in 2007, and this figure increased to 90.9% in 2018, suggesting a major improvement in the mention of these two ethical issues by authors and possible more stringent editorial vigilance by the sampled journals.

This is an indication that the number of publications that fail to consider these variables is shrinking thus indicating a positive trend in the progression of South African studies mentioning and complying with the two ethical variables studied here.

## CHAPTER FIVE

### DISCUSSION

Results of the present study demonstrate that the rate of reporting ethical protection of research participants in South African journal articles, as far as the two variables are concerned, is improving, or moving towards expected standards. The researcher observed that although majority of international studies of similar nature conducted in the past showed better results when compared with the present study, South African researchers are not lagging in terms of reporting. For instance, Schroter et al. (2006), who analysed papers published in five general medicinal journals, i.e., *British Medical Journal*, *Journal of the American Medical Association*, *The Lancet*, *New England Journal of Medicine*, and *Annals of Internal Medicine*, found that ethical approval was mentioned in 69% and consent was mentioned in 53% of manuscripts.

#### Findings

Ruiz-Carnela (1999) conducted a study to assess and outline the frequency of reporting informed consent and ethics approval in five international journals and found that both variables were reported in 64% studies. When comparing Ruiz-Carnela's findings to this study, the rate of reporting in South African journals was 87%, which is higher than that of international journals.

Bauchner and Sharfstein (2001) investigated how often international research publications on child health reported on ethic approval and found that 60% articles reported ethics approval while 40% did not. When one compares those findings to the present study an observation is made that those figures are lower than similar South African studies.

Myles et al. (2003) conducted a study in the reporting of ethical approval and informed consent in clinical research published in leading anaesthesia journals and found that ethical approval was documented in 71% of publications and consent obtained 66% in publications. These results are closer to the present study than those mentioned above.

Munung et al. (2011) analysed publications from Cameroon and found that 57, 53% reported ethics approval, 70, 78% informed consent, and 50, 68% both ethics approval and informed consent. The study found that research ethics activities were not well-organised as they were being undertaken in various structures and research ethics committees were not properly organised. The present study presents a different scenario since in South Africa ethics review and ethics approval are conducted by well-constituted, government registered research ethics committees (Department of Health, 2015).

Murphy et al. (2015) reported on a study undertaken to assess the frequency of reporting ethics approval and informed consent in all reports of trials published in European otolaryngology journals. Results showed that 49.9% lacked statements on ethics approval and 42.9% lacked disclosure of informed consent. The study highlighted the fact that articles that did not state REC approval were associated with not stating informed consent and that there were articles that contained explicit statements of the two variables. A similar pattern was observed in the present study. Articles that lacked statements on REC approval also failed to report on informed consent in most instances, except for one article. This has resulted in closely matched percentages.

## Strengths and Weaknesses

Generalisability of the current findings is limited as the sample of five hundred articles was only drawn from the 15 South African journals mentioned above. The study only covers the period 2007–2018. Nevertheless, the study lays a comparative foundation for future studies to explore the subject further.

Details of study designs (e.g., observational vs. interventional/clinical trials) more or less likely to report the two variables in question were not captured.

## Recommendations

Although not directly supported by data from this study, it is suggested that clearer standardised editorial statements might help the reader to fully understand how the ethics requirements should be captured in their publications. For example, the phrase “informed consent was obtained” and can be used uniformly in each journal’s “Instructions to authors”.

Editors must ensure that requirements and standards are maintained in all submitted manuscripts and cases where manuscripts have fallen short in reporting, editors may inform authors that they could be rejected due to unsatisfactory ethical non-adherence (Bolshete, 2015).

It is suggested that additional training be given to aspiring researchers to raise their awareness regarding the importance of reporting research ethics committee approval and informed consent in their research publications.

## Recommendations for future research

As the study was confined to determining whether the two ethics requirements are mentioned or not, it did not explore what might have caused author/s not to report on them. For example, journals not specifying reporting of these issues might have lower rates of reporting – this is a potential future research question. Study types (e.g., observational vs. interventional/clinical trials) might also be associated with higher or lower rates of reporting. Journal impact factors might similarly correlate with reporting rates and should be studied.

The study does not consider South African authored studies published in international biomedical journals; also an area of future study.

## CHAPTER SIX CONCLUSION

In summary, this study commences by describing the need for the protection and respect of study participants in research tracing its origin, development, and progression both in South Africa and the world over. A detailed account of ethical rules and regulations is given, highlighting roles played by institutions like the World Medical Association and the Department of Health – South Africa.

Following the above, a particular emphasis is laid on the reporting of two variables constituting the core of the study in journal articles. These are mention of REC approval and informed consent by participants.

The study then presents clear answers to three research questions:

1. What proportion of South African biomedical research papers sampled mention research ethics approval?
2. What proportion of South African biomedical research papers sampled mention informed consent?
3. What is the variance of both variables for the years 2007–2018?

Results show that of five hundred articles reviewed 438 (87.6%) mentioned ethics approval and 439 (87.8%) mentioned informed consent.

In 2007, 11 of 26 articles sampled failed to mention both variables in their reports and in 2018 only 6 of 66 articles failed to mention both variables in their reports (see Appendix B –Raw Data Table). Taken together, only 57, 6% of sampled articles reported on both ethical issues in 2007, and this figure increased to 90.9% in 2018, encouragingly suggesting a major improvement in the mention of these ethical issues by authors. This suggests that the sampled journals might have introduced more stringent research ethics compliance requirements during the period studied, but this remains to be confirmed by further study.

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**APPENDIX A**  
**Ethics Review and Informed Consent Reporting (Data Capture Table)**

Journal	Author	Vol	Year	Pages	Ethics Review mentioned? Y/N	Informed consent mentioned? Y/N

## APPENDIX B

### Raw Data Table

RESEARCH ETHICS COMMITTEE APPROVAL AND PARTICIPANT CONSENT IN SOUTH AFRICAN BIO MEDICAL RESEARCH JOURNAL ARTICLES (2008 - 2018)

JOURNAL	AUTHOR	VOLUME	YEAR	PAGES	ETHICS APPROVAL MENTIONED?	INFORMED CONSENT MENTIONED?
South African Medical Journal	Bianca T, Henri C, Michael L	Vol 106 No 2	2012	356 - 359	Yes	Yes
South African Medical Journal	R Narasimooloo, A Ross	Vol 106 No 2	2012	360 -362	Yes	Yes
South African Medical Journal	H Tashneem, B Soraya,H Schaaf, B Simon	Vol 106 No 2	2012	363 -366	No	Yes
South African Medical Journal	A Sokwala M V Shaar	Vol 106 No 2	2012	368 -371	Yes	Yes
South African Medical Journal	L van Niekerk, A Scribante, PJ Raubenheimer	Vol106 No 2	2012	372 - 373	No	No
South African Medical Journal	A Chunder, J Deveen, SA Khedum, J Moodley	Vol106 No 2	2012	374 -376	Yes	Yes
S A J Obstetrics and Gynaecology	F Franc, H Lombard, R C Patterson	Vol 15 No 3	2009	94 - 99	Yes	Yes
S A J Obstetrics and Gynaecology	Ebrahim Bera	Vol 15 No 1	2009	26 - 33	Yes	Yes
S A J Obstetrics and Gynaecology	A Prollus, Aviljoen,A duPlessis H S Cronje, M Nel	Vol 15 No 1	2009	34 - 36	Yes	Yes
S A J Obstetrics and Gynaecology	E Bera, Jwacu N,F Paul, T Mancotywa, N Ngcelwane	Vol 16 No1	2010	P6 - 13	Yes	Yes
S A J Obstetrics and Gynaecology	Zeelha Abdool	Vol 17 No 3	2011	64 - 67	Yes	Yes
South African Journal of HIV Medicine	K Peltzer M E Shikwane	Vol 12 No 4	2011	24 - 28	Yes	Yes
South African Journal of HIV Medicine	A Dramowski, A Coovadia, T Meyers T Goga	Vol 12 No 4	2011	16 - 23	Yes	Yes
Occupational Health Southern Africa	R Barnes A J Colyn	Vol 17 No 4	2011	16 - 22	Yes	Yes
South African Journal of Psychiatry	K Peltzer	Vol 17 No3	2011	74 - 80	No	Yes
South African Medical Journal	T Thiadens, E Vervat, R Albertyn, M van Dijk, A B van As	Vol 101 No 8	2011	533 - 536	Yes	Yes
South African Medical Journal	H van der Plaas, M Mendelson	Vol 101 No 8	2011	529 -532	Yes	Yes
South African Medical Journal	D Lombard, S Bhoolay,G Geldenhys, B Glanzman, J Car	Vol 104 No 6	2014	413 - 419	No	Yes
South African Medical Journal	Z Vergotine, A P Kengane, R T Erasmus T E Mantsha	Vol 104 No 6	2014	420 -423	Yes	Yes
South African Medical Journal	W Stassen, T Wetzel	Vol 104 No 6	2014	424 - 427	Yes	Yes
South African Medical Journal	L Biagio, D W Swanepoel, C Lawrent, T Landberg,	Vol 104 No 6	2014	431 -435	Yes	Yes
South African Medical Journal	L Farrant, N Dinat, K Mmoledi, N Hatta, R Hatting	Vol 102 No6	2012	499 -500	Yes	Yes
South African Medical Journal	C Schutz, Z Ismail, C J Proxenos, S Marais, G Maartens	Vol 102 No6	2012	506 -511	Yes	No
Occupational Health Southern Africa	J M Grace, C J Wilders, G L Strydom, S M Ellies	Vol18 No 1	2012	15 - 21	Yes	Yes
Occupational Health Southern Africa	J M Grace, C J Wilders, G L Strydom, S M Ellies	Vol 18 No1	2012	26 - 31	Yes	Yes
South African Medical Journal	A H van der Waard, E M Peters	Vol 102 No5	2012	309-311	Yes	Yes
Health South Africa Gesondheid	Y Havenga, M L Sengane	Vol 23 (0) a1107	2018	9 Pages	Yes	Yes
South African Medical Journal	C O Ekperberg, B Longo-Mensah, A Akinrimnde, E Blanco	Vol 100 No 12	2010	822 - 826	Yes	Yes
South African Medical Journal	F C Fitzgerald, Linda-Gail Bekker, R Kaplan, L Meyer	Vol 100 No 12	2010	827 - 831	Yes	Yes
South African Medical Journal	M M du Toit, M Smith, J H Odendaal	Vol 100 No 12	2010	832 - 835	Yes	Yes
South African Medical Journal	L J Tooke, Y Joolay, A R Horn, M C Harrison	Vol 101 No 10	2011	749 - 750	Yes	Yes



South African Medical Journal	R Jina, R Jewkes, N Kristofides, J H Smith	Vol 101 No10	2011	758 -759	Yes	Yes
South African Medical Journal	E de Vriez, P Raubenheimer, B Kies, V C Burch	Vol 101 No10	2011	760 -764	Yes	Yes
South African Medical Journal	E D Gordon, E Kremer, I Couper, P Brysiwics	Vol 101 No10	2011	765 - 767	Yes	Yes
South African Medical Journal	D A Levin, G A Watermeyer, S R Thomson	Vol 101 No 10	2011	290 - 292	Yes	Yes
South African Medical Journal	C F N Koekelenberg, Z J Joubert, E M Irusen	Vol 101 No 10	2011	293 -294	Yes	Yes
South African Medical Journal	M Oszetin, Z R Yuksekava,	Vol 101 No 10	2011	295 - 298	Yes	Yes
South African Medical Journal	F Bischoff, A Rothberg, I Ratcliffe	Vol 101 No 10	2011	303 -305	Yes	No
South African Medical Journal	I Gender, R Matzopoulos, P Makanga, J Corrigan,	Vol 101 No 10	2011	303 - 305	Yes	Yes
South African Medical Journal	K K Pillay, A Ross, S van der Linde,	Vol 101 No 10	2011	307 -308	Yes	Yes
South African Medical Journal	A de Waard, E M Peters	Vol 101 No 10	2011	309 = 311	Yes	Yes
Occupational Health Southern Africa	M Smit, H Brand	Vol 17 No 5	2011	22 - 28	Yes	Yes
South African Respiratory Journal	O B Ozoh, C F N Koegelenberg, R Brauns, C T Bolliger	Vol 18 No 2	2012	39 -42	Yes	Yes
South African Respiratory Journal	J Peter, G Theron, K Dheda	Vol 18 No 2	2012	43 - 46	Yes	Yes
South African Journal of Psychiatry	M M Strydom, J P Pretorius, G Joubert	Vol18 No 3	2012	84 - 88	Yes	Yes
South African Journal of Psychiatry	P M van Zyl, C A GagianoW F Mollentze, J S Snyman	Vol 18 No 3	2012	96 - 102	Yes	Yes
Occupational Health Southern Africa	A J Swanepoel	Vol 17 No 6	2011	14 - 20	Yes	Yes
Occupational Health Southern Africa	N Malangu	Vol 18 No 2	2012	14 - 19	Yes	Yes
Occupational Health Southern Africa	W S Kruger, S Oluwatosi, G Joubert	Vol 18 No 3	2012	P 4 -P 10	Yes	Yes
Occupational Health Southern Africa	B Sangara-Tori, S Polineou-Vallee, G Akindes-Sezan	Vol 18 No4	2012	P 9 - P 11	No	Yes
Occupational Health Southern Africa	W H Kruger	Vol 18 No4	2012	20 -24	Yes	No
Occupational Health Southern Africa	L Zungu	Vol 18 No 5	2012	6 to 13	Yes	Yes
Occupational Health Southern Africa	S Himaloya, Prof J Frants	Vol 18 No 5	2012	28 - 32	Yes	Yes
S A Journal of Obstetrics & Gynaecology	G Matseke, K Peltser, Dr Habil, G Mlambo	Vol18 No 3	2012	77 - 81	Yes	Yes
S A Journal of Obstetrics & Gynaecology	L Juul, J A va Rensberg, P S Styn	Vol 18 No 3	2012	82 - 84	Yes	Yes
South African Medical Journal	R T Erasmus, D J Soita, M S Hassan, E Blanco-Blanco	Vol102 No 2	2012	841 - 844	Yes	Yes
South African Medical Journal	C van der Merwe, H Haylet, J Harvey, D Lombaard, Bardin	Vol 102 No 2	2012	848 - 851	Yes	Yes
South African Medical Journal	B Vythilingum, A Roos, S C Faure, L Geerts, D J Styn	Vol 102 No 2	2012	851 - 854	Yes	Yes
South African Medical Journal	K Peltzer, S Pengpid, L Skaal	Vol 18 No 1	2012	10 to 15	Yes	Yes
South African Medical Journal	R D Govender, L Schlebusch	Vol 18 No 1	2012	16 -21	Yes	Yes
South African Medical Journal	G Fine, D van der Westhuizen, C Kruger,	Vol 18 No 1	2012	22 - 26	Yes	Yes
South African Medical Journal	K Balme, J C Roberts, M Glasstone, L Curling, M D Mann	Vol 102 No 3	2012	142 - 146	Yes	Yes
South African Medical Journal	U Feucht, B Forsyth, M Kruger	Vol 102 No 3	2012	149 - 152	Yes	Yes
South African Medical Journal	T Mosendane, M C Kew, R Osih, A Mahomed	Vol 102 No 3	2012	153 - 156	Yes	Yes
South African Medical Journal	S H Mayaphi, T M Rossow, D Difuro, A S A Onorunju,	Vol 102 No 3	2012	157 - 162	Yes	Yes
South African Medical Journal	L Koen DJS Niehaus, G Wright, L Warnich, G de Jong, S Mall	Vol 102 No 3	2012		Yes	Yes
South African Medical Journal	S J Dyer, T F Kruger,	Vol 102 No 3	2012	167 - 170	Yes	Yes
South African Journal of Psychiatry	M Y H Moosa, F J Jeena	Vol 16 No4	2010	125 - 130	Yes	Yes
South African Journal of Psychiatry	L Dannat, K J Kloete, M Kidd, L Weich	Vol 20 No 3	2014	77 - 82	Yes	Yes
South African Journal of Psychiatry	Z Khan K J Cloete, J Harvey, L Weich	Vol 20 No 3	2014	82 - 87	Yes	Yes
South African Medical Journal	S J Reid, I D Couper, J Volmink	Vol 101 No 1	2011	29 = 33	Yes	Yes
South African Medical Journal	M N Patel, S Beningfield, V Burch,	Vol 101 No 1	2011	39 - 42	Yes	No

South African Medical Journal	M Urban, C Stewart, T Rupert, L Geerts	Vol 101 No 1	2011	45 - 48	Yes	No
South African Medical Journal	V du Plessis, S Andronikou, G Struck, N McKerrow, Stocker	Vol 101 No 1	2011	829 - 834	Yes	Yes
South African Medical Journal	K Donald, S Hall Seaton, D Tanyanyiwa	Vol101 No1	2011	823 - 828	Yes	Yes
South African Medical Journal	N Mngoma, S Vergoes, A Jeeves, R Jolly	Vol 106 No 12	2016		Yes	Yes
South African Medical Journal	P Ashko0mar, R Naidoo,	Vol 106 No 5	2016	514 - 518	Yes	No
South African Medical Journal	N Folb, M O Bachmann, E D Bateman, K Styn, C Lombaard	Vol106 No 12	2016	1241 - 1246	Yes	Yes
South African Medical Journal	N B Ncube, G C Solanki, T Credo, R Lallo	Vol 107 No 2	2017	119 -122	Yes	Yes
South African Medical Journal	D G Pule, K Mnika, S Moula, N Novitzky, A Wonkam	Vol 107 No 2	2017	149 - 155	Yes	Yes
South African Medical Journal	M Zampoli, Z Mukudem	Vol 107 No 2	2017	123 -126	Yes	Yes
South African Medical Journal	S Green, V Y Kong, D I Clark, B Sartorius, J Odendaal, J Bruce	Vol 107 No 2	2017	134 -136	Yes	No
S A Journal of Child Health	T Naicker, C Aldous, R Thejpal	Vol 10 No 1	2016	29 - 32	Yes	Yes
South African Medical Journal	S Sing, F Solomon, S A Madhi, Z Dangor	Vol 108 No 11	2018	953 - 956	Yes	No
S A Journal of Child Health	M Karsac, P J Becker, R J Green	Vol 10 No 1	2016	33 - 36	Yes	Yes
S A Journal of Child Health	L M du Plessis, M G Herselman, M H McLachan, J H Nel	Vol 10 No 1	2016	37 - 42	Yes	Yes
S A J Obstetrics and Gynaecology	L Seutlwadi,K Peltzer,G Mchunu, B O Tutshana	Vol 18 No 2	2012	43 - 47	Yes	Yes
Health South Africa Gesondheid	T Dlungwane, A Voce, S Knight	Vol 23 (0) a1082	2018	6 Pages	Yes	Yes
S A J Obstetrics and Gynaecology	D Kennedy, S Faucus,M Kroon	Vol 19 No 1	2012	P 6 - 10	Yes	No
S A J Obstetrics and Gynaecology	A A Banningboye, J HofmeyrM Labiodan	Vol 18 No 3	2013	75 - 76	Yes	Yes
S A J of Child Health	T Tolka, R Essop, L Fluks, M Mokae, B Moolman	Vol 12 No 2 suppl	2018	S 32 -S35	Yes	Yes
Health S A Gesundheit	O Brown, V Goliath, D R M van Rooyen	Vol 23 No1	2018	7 Pages	Yes	Yes
Health S A Gesondheid	M N Mntlangula,N Khuzwayo, M Taylor	Vol 22 No 1	2017	52 - 60	Yes	Yes
S A J Child Health	J L Brown, J M Sales, C Sharp,J Cloete, L Marais	Vol 12 No 2 suppl	2018	S 40 - S43	No	Yes
S A J Child Health	N Pillay	Vol 12 No 2 Suppl	2018	S 15 - S 18	Yes	Yes
S A J Occupational Therapy	M Smith, MM Visser,R van Heerden, J Raubenheimer	Vol 48 No 1	2018	40 - 50	Yes	No
S A J Occupational Therapy	A Hughes, D Frenzen, J Freeme	Vol 47 No 3	2017	P 3 -10	Yes	Yes
S A J Occupational Therapy	L Wegner, P Struthers, S Mahomed	Vol 47 No 3	2017	P 11 - P 16	Yes	Yes
South African Medical Journal	M Labuschagne, W Robbertse, J Rosmiarek, M Strydom	Vol 101 No 5	2011	324 - 327	Yes	Yes
South African Medical Journal	F J Bosch, C van Vuuren, G Joubert	Vol 101 No 5	2011	328 - 331	Yes	No
South African Medical Journal	S H Heysell, S V Sheno, K Cutterick, T A Thomas, G Friedland	Vol 101 No5	2011	332 - 334	No	No
South African Medical Journal	J Nwobegahay, P Bessong, T Masebe, L Mayhandu, Manhaeve	Vol 101 No 5	2011	335 - 337	Yes	Yes
South African Medical Journal	L deVilliers, M Badri, M Ferreira, A Bryer	Vol 101 N0 5	2011	345 - 348	Yes	Yes
South African Medical Journal	N Naidoo, A Abayomi	Print Edition	2018	49 - 53	Yes	Yes
South African Medical Journal	N A Gogela, M W Sonderup, K Rebe, T Chivese, C Spearman	Print Edition	2018	54 -58	Yes	Yes
S A Journal of Obstetrics & Gynaecology	F S Peterson, Z Abdool	Vol 24 No 3	2018	1 to 5	No	Yes
S A Journal of Obstetrics & Gynaecology	P R Mamabolo,	Vol 23 No 3	2017	80 - 84	No	Yes
S A Journal of Obstetrics & Gynaecology	V Nicolaou, C Droste, K R L Huddle	Vol 23 No 3	2017	85 - 88	No	Yes
S A Journal of Obstetrics & Gynaecology	K Frank, H Lombaard, R C Paterson	Vol 15 Issue 3	2009	94 - 99	Yes	Yes
S A Journal of Obstetrics & Gynaecology	E Bera, N Jwacu, F Paul, T Mancotywa, N Ngcelwane	Vol 16 Issue 1	2010	6 to 13	Yes	Yes
S A Journal of Obstetrics & Gynaecology	J P Madombwe, S Knight,	Vol 16 No 1	2010	18 - 21	Yes	Yes
S A Journal of Obstetrics & Gynaecology	I Bera	Vol 15 No 1	2009	26 - 33	Yes	Yes
S A Journal of Obstetrics & Gynaecology	U M Majeed, V Sharma, B Donde	Vol 14 Issue 2	2008	76 - 80	No	Yes

South African Journal of Surgery	C S Meki, T I Mangiwirow, J Lazarus	Vol 56 No 3	2018	43 - 46	Yes	Yes
South African Journal of Surgery	S W Wentzel, L P Vermeulen, C A Beukes, G Joubert	Vol 56 No 3	2018	47 - 50	Yes	No
South African Journal of Surgery	C Feben, J Komberg, A Mc Donald, A Krause	Vol 56 No 3	2018	30 - 33	No	No
S A Journal of Critical Care	C Mol, A C Argent, B M Morrow	Vol 34 No 2	2018	50 - 56	Yes	Yes
S A Journal of Critical Care	J Appiah, J Salie, B Morrow	Vol 34 No 2	2018	58 - 64	Yes	Yes
S A Journal of Critical Care	W Emmamally, P Breisiwics	Vol 34 No 2	2018	38 -43	No	Yes
South African Journal of Child Health	A Wather, N H Makerrow, M E Morgan	Vol 12 No 4	2018	143 - 147	Yes	No
S A J Occupational Therapy	S Sassen, R Galvaan, M Duncan	Vol 48 No 1	2018	28 - 33	Yes	No
S A J Occupational Therapy	I Sonn, N Vermeulen	Vol 48 No 1	2018	34 - 39	Yes	Yes
S A J Occupational Therapy	L J Vial, D Franzsen	Vol 48 No 1	2018	40 - 50	Yes	No
S A Journal of Clinical Nutrition	C E Napier, W H Oldewage- theron, H H Grobelaar	Vol 31 No 3	2018	55 - 61	Yes	Yes
South African Journal of Surgery	S Cheddi, C G Maneh, B Pillay	Vol 56 No 3	2018	16 - 19	Yes	No
South African Journal of Surgery	B Daffue, D Moolman, S Ferreira, L Roor, L Schoeman, Smit	Vol 56 No 3	2018	31 - 36	Yes	No
South African Journal of Surgery	A J Vlok, S Naidoo, A S Kamat, D Lamprecht	Vol 56 No 3	2018	38 - 42	No	Yes
S A Journal of Clinical Nutrition	A Egal, W Oldewage- Theron	Vol 31 No 3	2018	62 - 66	Yes	Yes
South African Medical Journal	S Seedat, D J Styn, P B Jackson, S G Heeringer, L Meyer	Vol 99 No 5	2009	375 - 382	Yes	Yes
Health S A Gesondheid	N S Spencer,A du Preez,C S Minie	Vol 23 No 1	2018	8 Pages	No	Yes
Health S A Gesondheid	M N Phahlamohlaka, S Mdletshe, H Lawrence	Vol 23 No 1	2018	6 Pages	Yes	Yes
Health S A Gesondheid	R Gaida, I Truter, C Grobler	Vol23 No 1	2018	7 Pages	Yes	Yes
Health S A Gesondheid	R J Ramalisa, E du Plessis,M P Koen	Vol 23 No 1	2018	193 -195	No	No
Health S A Gesondheid	M Roets, M Poggenpoel,C Myburg	Vol 23 No 1	2018	9 Pages	Yes	Yes
S A J Obstetrics and Gynaecology	P J Cooper, M Tomlinson, L Swarts, M Landman, C Molteno	Vol 15 No 2	2009	58 - 59	No	Yes
S A Journal of HIV Med	T T Hansen, M Herselman, L du Plessis, L Daniels	Vol 16 No 1	2015	5 Pages	Yes	Yes
S A Journal of HIV Med	M Knight, R L van Zyl, I Sanne, J Bassett, A van Rie	Vol 16 No 1	2015	5 Pages	Yes	Yes
S A Journal of HIV Med	N Ramdas, J C Meyer, D Cameron	Vol 16 No 1	2015	6 Pages	Yes	Yes
S A Journal of HIV Med	S Moola, A Rajkumar, E de Vries	Vol 16 No 1	2015	7 Pages	Yes	Yes
S A Journal of HIV Med	D Flood, M Wallace, K Bloch, J Kublin, L Bekker	Vol 16 No1	2015	6 Pages	Yes	Yes
S A Journal of HIV Med	A Moodley, W Rae, A Bhigjee	Vol 16 No 1	2015	9 Pages	Yes	Yes
S A Journal of HIV Med	L Wilkinson, h Duvivier, G Patten, S Solomon, L Mdani	Vol 16 No 1	2015	7 Pages	Yes	Yes
S A Journal of HIV Med	G du Toit, M Kidd	Vol 16 No 1	2015	5 Pages	Yes	Yes
S A Journal of HIV Med	E Lawrence, P Struthers, g van Howe	Vol 16 No1	2015	6 Pages	Yes	Yes
S A Journal of HIV Med	J King, D T Hagemeister	Vol 17 No 1	2016	3 Pages	Yes	Yes
S A Journal of HIV Med	M E Rossouw, M Cornell, M F Cotton, M M Esser	Vol 17 No 1	2016	9 Pages	Yes	No
S A Journal of HIV Med	O B Omole, MM L Semanya	Vol 17 No 1	2016	6 Pages	Yes	No
S A Journal of HIV Med	S Taukeni, R Ferreira	Vol 17 No 1	2016	7 Pages	Yes	Yes
S A Journal of HIV Med	A P Scheibe, Z Duby, B Brown, E J Sanders, L Bekker	Vol 18 No 1	2017	8 pages	Yes	Yes
S A Journal of HIV Med	M Delarise, M Mulqueeny, M Taylor	Vol 18 No 1	2017	7 Pages	Yes	Yes
S A Journal of HIV Med	D Naraisamy, S Mahomed	Vol 18 No 1	2017	5 Pages	No	No
S A Journal of HIV Med	F C Mukumbang	Vol 18 No1	2017	9 Pages	Yes	Yes
S A Journal of HIV Med	M Pienaar, F C van Rooyen, C M Walsh	Vol 18 No1	2017	8 Pages	Yes	Yes
S A Journal of HIV Med	B Hanhan, A Williams	Vol 18 No 1	2017	6 Pages	Yes	Yes

S A Journal of HIV Med	B Hamsoti, S E Hill, M Whalen, D Stead, A Parish, R Rothman	Vol 18 No 1	2017	7 Pages	No	Yes
South African Medical Journal	A P Messina, A J Brink, G A Richards	Vol 108 No 1	2018	28 - 32	Yes	No
South Africa Medical Journal	N G Velios, C P van Walbeek	Vol 108 No 1	2018	33 - 39	No	Yes
South African Medical Journal	J A Teare, N Naicker, P Albers, A Mathee	Vol 108 No1	2018	40 - 44	Yes	Yes
S A Journal of Bioethics and Law	C Marais, J Smouse, G Poortier, A Fair, G Joubert, W Steiberg	Vol 10 No 2	2017	96 - 101	Yes	Yes
South African Medical Journal	F Noor, C F N Koegelemborg, T M Esterhuizen	Vol 108 No 1	2018	45 - 49	Yes	Yes
South African Medical Journal	N S Abbai, M Nyirenda, G Ramjee	Vol 108 No 1	2018	50 - 55	Yes	Yes
South African Journal of Clinical Nutrition	K Mkhawani, S A Motadi, N S Mabapa, X G Mbhenyane	Vol 29 Issue 2	2016	69 - 74	Yes	Yes
South African Journal of Clinical Nutrition	N Ducki, B Sartorius, M Taylor	Vol 30 Issue 2	2017	49 - 54	Yes	Yes
South African Journal of Clinical Nutrition	R G Duffet,	Vol 31 No 3	2018	20 - 28	Yes	Yes
South African Journal of Clinical Nutrition	M Fourie, G J Gericke, M C Kruger,	DOI: 10.1080	2018	8 Pages	Yes	Yes
Health S A Gesondheid	B Mashanda- Tafaune, L V Monareng,	Vol 21 No 1	2016	103 -109	Yes	Yes
Health S A Gesondheid	M Williams, D R M van Rooyen	Vol 21 No 1	2016	331 - 338	Yes	Yes
Health S A Gesondheid	N Ntshingila, A Temane, M Poggenpoel, CP H Myburgh	Vol 21 No 1	2016	437 - 443	No	Yes
Health S A Gesondheid	L van Niekerk, D du Toit, A E Pienaar	Vol 21 No 1	2016	348 - 355	Yes	Yes
Health S A Gesondheid	B Yudewitz, J Scribante, H Perrie, E Oosthuisen	Vol 21 No 1	2016	309 - 314	Yes	Yes
Health S A Gesondheid	K Mokwena	Vol 21 No 1	2016	137 - 142	Yes	Yes
S A J Occupational Therapy	L Maseko, B Harris	Vol 48 No 1	2018	22 - 27	Yes	Yes
S A J Occupational Therapy	A Swanepoel, S M van Heerden	Vol 48 No i	2018	16 - 21	Yes	Yes
S A J Occupational Therapy	E Ramano, T Buys	Vol 48 No 1	2018	P 9 - 15	Yes	Yes
S A J Occupational Therapy	L Wegner, M L Brink, M Jonkes, S Mampies	Vol 48 No 2	2018	34 - 40	Yes	Yes
S A J Occupational Therapy	D C Russell, C Scholtz,P Greyling, M Taljaard, E Viljoen,C Ver	Vol 48 No 3	2018	26 - 33	Yes	Yes
South African Medical Journal	W J Kalk, B I Joffe	Vol 108 No 1	2018	61 - 68	No	Yes
S A J Occupational Therapy	P B Barnard-Ashton, J van der Linde, A Rothberg, P McNery	Vol 48 No 2	2018	P 3 - 11	Yes	Yes
S A J Occupational Therapy	L L Monareng, D Franzsen, H van Biljon	Vol 48 No 3	2018	52 - 57	Yes	Yes
S A J Occupational Therapy	J Smit, J de Jongh, R C Cook	Vol 48 No 2	2018	44 - 51	No	Yes
S A J Occupational Therapy	M Visser, M Nel	Vol 48 No 2	2018	31 - 43	Yes	Yes
A S J Occupational Therapy	G F Pila -Nemutandani,	Vol 48 No 3	2018	19 - 23	Yes	No
South African Medical Journal	J Scribante, S Bhagwenjee	Vol 97 No 12	2007	1315 - 1318	Yes	Yes
South African Medical Journal	D Connelly, Y Veraiva, S Roberts, J Tsotesi, A Jordan, E DeSil	Vol 97 N0 2	2007	115 - 120	Yes	Yes
South African Medical Journal	A Gaym, M Mashego, A B M Kharsany, J Frohlich, Q A Karim	Vol 97 No2	2007	120 - 123	Yes	Yes
South African Medical Journal	T Rehle, O Shisana, V Pillay, K Zuma, A Puren, W Parker	Vol 97 No 3	2007	194 - 199	No	No
South African Medical Journal	K Fielingsdorf, R N Dunn	Vol 97 No 3	2007	203 - 207	No	No
South African Medical Journal	E Song, J Fabien, P E Boshoff, H Maher, P Gaylard, Ngwenya	Vol 108 No 11	2018	929 -936	Yes	No
South African Medical Journal	K B Opel, S L Holgate, H Finlayson,	Vol 108 No 11	2018	937 - 943	Yes	Yes
South African Medical Journal	S Kushche, N Concalves, S Peer	Vol 108 No 11	2018	915 - 922	Yes	Yes
South African Medical Journal	T D Gabler, J Loveland, A Theron, C Westgarth- Taylor,	Vol 108 No11	2018	947 - 952	Yes	Yes
South African Medical Journal	E j Ndebua, A n SAMMON	Vol 108 No11	2018	953 - 956	Yes	Yes
South African Medical Journal	J K Burns, K Jhazbhay, R A Emsley	Vol 108 No11	2018	957 - 959	Yes	Yes
South African Medical Journal	S D Madonso, G J Hofmeyr, F Mbengo, N T Mshweshwe	Vol 108 No 11	2018	965 -971	Yes	Yes
South African Medical Journal	S Mashaphu, G E Wayett, E Gomo, A Tomita	Vol 108 No11	2018	960 - 964	Yes	Yes

South African Medical Journal	B M Shmidt, H Geldehys, M Tameris, A Laubeya, M Hatherill	Vol 107 No12	2017	1078 -1081	Yes	Yes
South African Medical Journal	J P Pattison, V Y Kong, J L Bruce, G V Oosthuisen, W Bekker,	Vol 107 N02	2017	1082 - 1085	Yes	Yes
South African Medical Journal	S Mahomed, A W Sturm, P Moodley	Vol 107 No2	2017	1086 - 1090	Yes	Yes
South African Medical Journal	P Groenewalt, I Neethling, J Evans, V Azevedo, T Naledi	Vol 107 No 2	2017	1091 - 1098	No	No
South African Medical Journal	N van der Merwe, T Banobhai, A Gqwetha, A Gwala	Vol 103 No 11	2013	847 - 849	Yes	Yes
South African Medical Journal	P Waweru, R Anderson, H Steel, W D F Venter, D Murdock,	Vol 103 No 11	2013	858 - 860	Yes	Yes
South African Medical Journal	N Morris, J Freaan, L Baker, I S Ukpe, K R Barnes, P Kruger	Vol 103 No 11	2013	861 - 864	No	No
South African Medical Journal	N Peer, D Bradshaw, R Labuscher, K Steyn	Vol 99 No 10	2009	744 - 749	Yes	Yes
South African Medical Journal	A S Karstaedt, M Hopley, M Wong, H H Crewe-Brown,	Vol 99 No 10	2009	750 - 754	Yes	Yes
South African Medical Journal	P Betra, L Kuhn, L Deny	Vol 100 No1	2010	39 - 44	Yes	Yes
South African Medical Journal	N F Tanih, B I Okeleye, N Naidoo, A M Clarke, Mkwetshana	Vol 100 N01	2010	49 - 52	Yes	Yes
South African Medical Journal	C M Schlebuch, G Dreyer, M D Sluiter, T M Yawich	Vol 100 No 2	2010	113 - 117	No	No
South African Medical Journal	O A Ojo, G lowagle, N Morojele, K Rendal-Nkosi, L London	Vol 100 No 3	2010	180 - 182	No	No
South African Medical Journal	A Theron, C Schultz, J A Ker, L Falzone	Vol 100 No 2	2010	122 - 124	Yes	Yes
South African Medical Journal	F C Kruger, C Daniels, M Kid, G Swart, K Brandyn, M J Kotze	Vol 100 No 3	2010	168 - 171	Yes	Yes
South African Medical Journal	S Peer, J J Fagan	Vol 105 No 1	2015	35 - 39	Yes	Yes
South African Medical Journal	K J Sales, T Klein, A A Katz	Vol 105 No 1	2015	56 - 61	Yes	Yes
South African Medical Journal	M H Botha, F H van der Merwe, L C Snyman, G Dreyer	Vol 46 Issue 4	2015	40 - 43	Yes	Yes
South African Medical Journal	M Kruger, D Reynders, F Omar, J Schoeman, O Wedi, Harvey	Vol 104 No 12	2014	589 - 586	Yes	Yes
South African Medical Journal	S von Cues, S A Wadee	Vol 108 No12	2018	1042 - 1045	Yes	Yes
South African Medical Journal	A Linegar, F Smit, P Goldstraw, G Van Zyl	Vol 99 No8	2009	592 - 595	No	No
South African Medical Journal	N Mlangeni, F Sekubuge	Vol 106 No4	2016	365 - 368	No	No
South African Journal of Child Health	C L Hendricks, N H McKerrow, R J Hendricks	Vol 10 No 1	2016	57 - 62	Yes	Yes
South African Journal of Child Health	S Muhomud, K I Naidoo, R Masekela	Vol 12 No 4	2016	154 - 158	Yes	No
South African Journal of Child Health	J K Bezuidenhout, K Khoza- Shangase, T de Maayer,	Vol 12 No 4	2016	159 - 163	Yes	Yes
South African Journal of Child Health	A Vather, N H McKerrow, M E Morgan	Vol 12 No 4	2016	143 - 147	Yes	Yes
South African Journal of Child Health	P B S Radebe, P M Jeena	Vol 12 No 4	2016	164 - 169	Yes	Yes
South African Journal of Child Health	S E Ledwaba, J P Kabue, T G Barnard	Vol 12 No 4	2016	170 - 174	Yes	Yes
South African Journal of Child Health	N P Majazi, N Nkwanyana, S Thula, A Coutsoodis	Vol 11 No 4	2017	155 - 158	Yes	Yes
South African Journal of Child Health	K Khoza- Shangase, A Kanji, L Petrocchi-Bartal	Vol 11 No 4	2017	159 - 163	Yes	Yes
South African Journal of Child Health	L M Du Plessis, H E Koornhof, M L Marais, R Blaaw	Vol 11 No 4	2017	164 - 169	Yes	Yes
South African Journal of Child Health	M M Lebea, V Davies,	Vol 11 No 4	2017	170 - 173	Yes	Yes
South African Journal of Child Health	R Blaauw, L Daniels, L M du Plessis, N Koen, H E Koornhof	Vol 11 No 4	2017	174 - 179	Yes	Yes
South African Journal of Child Health	V K Moselakgomo, M Van Staden	Vol 11 No 4	2017	187 - 192	Yes	Yes
South African Journal of Child Health	A D Flynn, R L Scheurle, G Goglon, S E Gerrald, Netshandama	Vol 11 No 4	2017	193 -198	Yes	Yes
South African Journal of Child Health	N de Wet	Vol 10 No 3	2016	151 - 155	No	No
S A Journal of HIV Medicine	P B Muzah, S Takuva, M Maskew, S Delany-Moretlwe	Vol 13 No 4	2012	168 - 172	Yes	Yes
S A Journal of HIV Medicine	G M Lohrmann, B Botha, A Vaolari, G E Gray	Vol 13 No 4	2012	174 - 177	Yes	No
S A Journal of HIV Medicine	C M Scutte	Vol 14 No3	2013	121 - 124	Yes	No
S A Journal of HIV Medicine	K Pelzer	Vol 14 No3	2013	125 - 130	Yes	Yes
S A Journal of HIV Medicine	M M Morsheimer, A Drawowski, H Rabie, M F Cotton	Vol 15 No 4	2014	148 - 153	Yes	Yes

S A Journal of HIV Medicine	T T Hamsen, M Harselman, L du Plessis, L Daniels, L Truter	Vol 16 No 1	2015	5 Pages	Yes	Yes
S A Journal of Oncology	M Govender, L Ferndale, D L Clark	Vol 1 a 6	2017	3 PAGES	Yes	No
S A Journal of Oncology	L B Edwards, L E Greef	Vol 1 a14	2017	8 Pages	Yes	Yes
S A Journal of Oncology	H Burger, H M Gregor, R Balchin, J D Parkes	Vol 1 a19	2017	7 Pages	No	Yes
S A Journal of Oncology	N Beringer, J E Poole, E Ballot, J A Geel	Vol 1 a 26	2017	7 PAGES	Yes	Yes
S A Journal of Gynaecological Oncology	I Fourie, H M Simonds	Vol 10 No 2	2018	20 Pages	Yes	Yes
S A Journal of Gynaecological Oncology	G C Du Toit, M Kidd	Vol 5 No 2	2013	41 - 46	Yes	Yes
South African Medical Journal	R Jacobs, N Hornsby, S Marais,	Vol 104 No 12	2014	864 - 869	No	Yes
South African Medical Journal	L N Goldstein, M Wells, K Sliwa	Vol 104 No 12	2014	869 - 873	Yes	Yes
South African Medical Journal	G Fatti, N Shaikh, B Eley, D Jackson, A Grimwood	Vol 104 No 12	2014	874 - 880	Yes	Yes
South African Medical Journal	B F Jacobsen, W J Riback	Vol 104 No 12	2014	880 - 884	No	Yes
South African Medical Journal	B Mash, D Powell, F du Plessis, U van Vuuren, Machalowska	Vol 97 No 12	2007	1284 - 1288	No	No
South African Medical Journal	E Mayne, B Jacobson, S Louw, P Bernstein, A Mayne	Vol 97 No 12	2007	1289 - 1291	Yes	Yes
South African Medical Journal	J Karpakis, H Rabie, J Howard, A Janse van Rensburg, Cotton	Vol 97 No12	2007	1292 - 1294	No	No
South African Medical Journal	K Nyamande, U G Laloo	Vol 97 No 8	2007	601 - 603	No	No
South African Medical Journal	P Saranchuk, A Boule, K Hilderbrand, D Coetzee, M Bedelu	Vol 97 No 7	2007	517 - 523	Yes	Yes
South African Medical Journal	C S Wiysonge, M S Shey, J Shang, P Brocklehurst	Vol 97 No 7	2007	530 - 533	No	No
South African Medical Journal	L V Marino, E Goddad, A Whitelaw, L Workman	Vol 97 No 7	2007	534 - 537	Yes	Yes
South African Medical Journal	F Ibach, R A Dyer, S Fawcus, S J Dyer	Vol 97 No 6	2007	461 - 464	Yes	Yes
South African Medical Journal	A C van Lierop, C A Prescott, J J Fagan	Vol 97 No 5	2007	367 - 370	No	Yes
South African Medical Journal	O Meissner, D L Buso	Vol 97 No 5	2007	371 -373	No	No
South African Medical Journal	L Bell, V Bhat, G George, A A Awotedi, B Gqaza	Vol 97 No 5	2007	374 - 377	No	No
South African Medical Journal	K Richter, P Becker, A Horton, G Dreyer	Vol 103 No 5	2013	313 - 317	Yes	Yes
South African Medical Journal	L C Snyman, M H Both, D J Becker	Vol 105 No2	2015	115 - 120	Yes	Yes
S A J Obstetrics and Gynaecology	M Moodley, T Marishame	Vol 25 Issue 5	2009	482 - 485	No	No
S A J Obstetrics and Gynaecology	A N A H Alhurry, M A Akool, S V Hosseini, H Khazrael	Vol 24 No 3	2018	28 - 31	Yes	Yes
S A J Obstetrics and Gynaecology	T Leonard, H Perrie, J Scribante	Vol 24 No 2	2018	52 - 56	Yes	Yes
S A J Obstetrics and Gynaecology	A Chrisostomou, S J Branch, N E Myamya	Vol 23 No 3	2017	80 - 84	No	No
S A J Obstetrics and Gynaecology	M Human, R D Goldstein, C A Groenewald	Vol 23 No 3	2017	93 - 96	Yes	Yes
S A J Obstetrics and Gynaecology	R T Mogakane, Z Abdool, S A Humad, H M Swanepoel	Vol 23 No 3	2017	97 - 100	Yes	Yes
S A J Obstetrics and Gynaecology	C Brandt, C van Rooyen, H S Cronje	Vol 22 No 2	2016	38 - 41	Yes	Yes
S A J Obstetrics and Gynaecology	N van der Westhuisen, G Hanekom	Vol 22 No 2	2016	42 - 46	Yes	Yes
S A J Obstetrics and Gynaecology	L J van Vuuren, C A Cluver	Vol 22 No 2	2016	52 - 56	Yes	Yes
S A J Obstetrics and Gynaecology	P F Kruger, R Kung, F Hamidine, R Rahmani	Vol 22 No 2	2016	62 - 64	Yes	Yes
S A J Obstetrics and Gynaecology	P M Builu, T D Naidoo	Vol 21 No 2	2015	65 - 66	Yes	Yes
S A J Obstetrics and Gynaecology	L de Waard, J L Butt, J B Muller, C A Cluver	Vol 20 No 3	2014	48 - 49	Yes	Yes
S A J Obstetrics and Gynaecology	M Nieuwoudt, L J van der Merwe, J Havey, D R Hall	Vol 20 No 2	2014	54 - 59	Yes	Yes
S A J Obstetrics and Gynaecology	G Learmouth, D Learmouth	Vol 20 No 2	2014	51 - 53	Yes	Yes
S A J Obstetrics and Gynaecology	J Moodley, M Bryan, K Tunkyi, S M Khedun	Vol 20 No 1	2014	P 8 - P 11	No	No
S A J Obstetrics and Gynaecology	B Malende, J Moodley, S R Kambaren	Vol 20 No 1	2014	22 - 26	Yes	Yes
S A J Obstetrics and Gynaecology	S Sulaiman, S Othman, N Razali, J Hassan	Vol 19 No 3	2013	77 - 80	Yes	Yes

S A J Obstetrics and Gynaecology	B Uzabakirho, E J Buchman	Vol 18 No 3	2012	88 - 89	Yes	Yes
S A J Obstetrics and Gynaecology	D Chweneyagae, N Delis-Jarrosay, R C Pattison, S J Seabe	Vol 18 No 3	2012	70 - 76	No	Yes
S A J Obstetrics and Gynaecology	R J Lourens, T I Siebert, T F Kruger, J P van der Merwe	Vol 17 No 3	2011	56 - 62	Yes	Yes
S A J Obstetrics and Gynaecology	Z Abdool	Vol 17 No 3	2011	64 - 67	Yes	Yes
S A J Obstetrics and Gynaecology	J P Mandombwe, S Knight	Vol 16 No 1	2010	18 - 21	Yes	Yes
S A J Obstetrics and Gynaecology	L Mangesi, G J Hofmeyr, D L Woods,	Vol 15 No 2	2009	58 - 59	No	No
S A J Obstetrics and Gynaecology	J H Odendaal, A M Theron, M H Carstens, M de Jager, D Grove	Vol 14 No 1	2008	33 - 37	No	Yes
S A J Obstetrics and Gynaecology	P Naidoo, I Erasmus, J Jeebodh, E Nicolaou	Vol 14 No 1	2008	38 - 42	Yes	Yes
S A J Obstetrics and Gynaecology	F A C P Lambrechtsen, A van Rensberg, P S Steyn, D Grove	Vol 13 No 3	2007	98 - 104	No	Yes
S A J Obstetrics and Gynaecology	P R Abels, T F Kruger, T Kitila, C J Lombaard	Vol 13 No 3	2007	104 - 109	No	Yes
S A Journal of HIV Medicine	M Cotton, S Kim, H Rabie, J Coetzee, S Nachman	Vol 11 No2	2010	16 - 19	Yes	Yes
S A Journal of HIV Medicine	F M Esposito, A Coutsooudis, J Visser, G Kindra	Vol 9 No 4	2008	36 - 42	Yes	Yes
S A Journal of Critical Care	S Mahomed, J De Beer	Vol 34 No 1	2018	P10 - P14	Yes	Yes
S A Journal of Critical Care	M N Terhart, S Hanekom, A Lupton- Smith, B Morrow	Vol 34 No 1	2018	22 - 27	Yes	Yes
S A Journal of Critical Care	J Rout, P Brysiewicz	Vol 33 No 2	2017	46 - 50	Yes	Yes
S A Journal of Critical Care	K Crymble, H R Etheredge, J Fabian, P Gaylard	Vol 33 No 2	2017	52 - 57	Yes	No
S A Journal of Critical Care	J P B Almaze, J De Beer	Vol 33 No 2	2017	60 - 65	Yes	Yes
S A Journal of Critical Care	M Motiang	Vol 33 No1	2017	P 12 - P 14	Yes	No
S A Journal of Critical Care	R D Wise, R N Rodseth, L Correa- Martin, S Margallo, Becker	Vol 33 No 1	2017	P 15 - P18	Yes	No
S A Journal of Critical Care	L van Heerden, H van Eswegen, S van Vuuren, R Roos, A Duse	Vol 33 No 1	2017	23 - 27	Yes	Yes
S A Journal of Critical Care	J de Beer, P Brysiewicz	Vol 32 No 2	2016	44 - 49	Yes	Yes
S A Journal of Critical Care	M Venter, W Stassen	Vol 32 No 2	2016	58 - 61	No	Yes
S A Journal of Critical Care	K G H Katundu, I A Joubert, J L Piercy	Vol 32 No 1	2016	21 - 27	Yes	Yes
S A Journal of Critical Care	M Lottering, H van Eswegen	Vol 32 No 1	2016	P 11 - P 16	Yes	Yes
S A Journal of Critical Care	D Morar, H van Eswegen	Vol 32 No 1	2016	P 6 - P 10	Yes	No
S A Journal of Critical Care	G C Langley, L Kisorio, S Schmollgrubel	Vol 31 No 2	2015	36 - 41	Yes	No
S A Journal of Critical Care	L T Hill	Vol 31 No 2	2015	42 - 50	Yes	Yes
S A Journal of Critical Care	D Nell, W Stassen	Vol 31 No 2	2015	58 - 61	Yes	No
S A Journal of Critical Care	M E Memela, P D Gopalan	Vol 30 No 2	2014	35 - 40	Yes	Yes
S A Journal of Critical Care	E Bronkhorst, N Schellack, A G S Gous	Vol 30 No 2	2014	41 - 44	Yes	Yes
S A Journal of Critical Care	J Ilicki, T C Hardcastle, D J J Muckart	Vol 30 No 2	2014	45 - 50	Yes	Yes
S A Journal of Critical Care	J de Beer, J Chipps	Vol 30 No 2	2014	50 - 54	Yes	Yes
S A Journal of Critical Care	A Diacon, J Bell	Vol 30 No 2	2014	55 - 57	Yes	No
S A Journal of Clinical Nutrition	C Biggs, E Spooner	Vol 31 No 4	2018	78 - 83	Yes	Yes
S A Journal of Clinical Nutrition	P J Gradidge, E Cohen	Vol 31 No 4	2018	89 - 91	Yes	Yes
S A Journal of Clinical Nutrition	K S Draper, G P Hadley, K Pillay, N L Wiles	Vol 31 No 4	2018	74 - 77	Yes	Yes
S A Journal of Clinical Nutrition	A Du Toit, A B T Boutall, R Blaauw	Vol 31 No 2	2018	29 - 34	Yes	Yes
S A Journal of Clinical Nutrition	R G Duffett	Vol 31 No 2	2018	220 - 28	Yes	Yes
S A Journal of Clinical Nutrition	S S Madlala, S M Kassier	Vol 31 No 1	2018	P 1 - P 7	No	Yes
S A Journal of Clinical Nutrition	S Pillay, W Sibanda, M R Ghuman	Vol 31 No 1	2018	14 - 19	Yes	Yes
S A Journal of Clinical Nutrition	S M Laurie, M Faber, M M Maduna	Vol 31 No 1	2018	80 86	Yes	Yes

S A Journal of Clinical Nutrition	A T Onyenyika, K Pillay, M Siwela	Vol 31 No1	2018	87 - 92	Yes	Yes
S A Journal of Clinical Nutrition	L F Mushaphi, A Dannhauser, C M Walsh, F C van Rooyen	Vol 31 No 1	2018	101 - 108	Yes	Yes
S A Journal of Clinical Nutrition	S van Zyl, L J van der Merwe, F C van Rooyen, G Joubert	Vol 30 No 3	2017	68 - 73	Yes	Yes
S A Journal of Clinical Nutrition	M L Marais, Y Smit, N Koen, E Lotze	Vol 30 No 3	2017	60 - 67	Yes	Yes
S A Journal of Clinical Nutrition	N Nortje, M Faber, A de Villiers	Vol 30 No3	2017	74 - 79	No	Yes
S A Journal of Clinical Nutrition	F A M Wenhold, Z White	Vol 30 No 2	2017	27 - 33	No	Yes
S A Journal of Clinical Nutrition	L Robb, C M Walsh, M Nel, A Nel H Odendaal, R van Aard	Vol 30 No 2	2017	34 - 40	Yes	Yes
S A Journal of Clinical Nutrition	N Nortje	Vol 30 No 1	2017	21 - 23	Yes	Yes
S A Journal of Clinical Nutrition	K A Nguyen, A de Villiers, J M Fourie, M Hendricks	Vol 30 No 1	2017	15 - 20	Yes	Yes
S A Journal of Clinical Nutrition	C Marais, L van Wyk, M Conradie, D Hall	Vol 29 No 3	2016	118 - 121	Yes	Yes
S A Journal of Clinical Nutrition	L van den Berg, M Nel, D Brand, J Bosch, W Human, C Walsh	Vol 29 No 3	2016	127 - 132	Yes	Yes
S A Journal of Clinical Nutrition	P Seonandan, N H McKerrow	Vol 29 No 3	2016	111 - 115	Yes	Yes
S A Journal of Clinical Nutrition	C R Lahner, S M Kassier, F J Veldman	Vol 29 No 3	2016	122 - 126	Yes	Yes
S A Journal of Clinical Nutrition	J Muchiri, G Gericke, P Rheeder,	Vol 29 No 2	2016	83 - 89	Yes	Yes
S A Journal of Clinical Nutrition	L Steenkamp, R Lategan, J Roubenheimer,	Vol 29 No 1	2016	27 - 31	Yes	Yes
S A Journal of Clinical Nutrition	A Gresse, L Steenkamp, J Peterse,	Vol 28 No 4	2015	154 - 159	Yes	Yes
S A Journal of Clinical Nutrition	L van den Berg, J Roubenheimer	Vol 28 No 4	2015	160 - 169	Yes	Yes
S A Journal of Clinical Nutrition	L P Siziba, S M Hanekom, E Wentzel- Viljoen	Vol 28 No 4	2015	170 - 179	Yes	Yes
S A Journal of Clinical Nutrition	S Van der Merwe, H Jooste	Vol 28 No 3	2015	121 - 127	Yes	Yes
S A Journal of Clinical Nutrition	W Oldewage- Theron, A Egal	Vol 28 No 3	2015	113 - 120	Yes	Yes
S A Journal of Clinical Nutrition	C Aben, T Mabesa, T C Hardcastle	Vol 28 No 2	2015	62 - 68	Yes	Yes
S A Journal of Clinical Nutrition	E Lofgren, T Mabesa, F Hammarqvist, I C Hardcastle	Vol 28 No 2	2015	70 - 76	Yes	Yes
S A Journal of Clinical Nutrition	L Tee, R Laubscher, J Jerling	Vol 28 No 2	2015	81 - 88	Yes	Yes
S A Journal of Clinical Nutrition	M P Tshikovi, G J Gericke, P J Becker,	Vol 28 No 1	2015	P 6 - P 11	Yes	Yes
S A Journal of Clinical Nutrition	O C Otitoola, W N Oldewage- Theron, A A Egal	Vol 28 No 1	2015	P 12 - P 17	Yes	Yes
S A Journal of Clinical Nutrition	T M Pedro, J M Pettifor, S A Norris,	Vol 27 No 4	2014	194 - 200	Yes	Yes
S A Journal of Clinical Nutrition	K A Audain, F J Feldman	Vol 27 No 4	2014	201 - 207	Yes	Yes
S A Journal of Clinical Nutrition	J Visser, T Notelovitz, C P Szabo, N Hendricks	Vol 27 No 4	2014	208 - 216	Yes	Yes
S A Journal of Clinical Nutrition	L Govender, J Derera, M Siwela	Vol 27 No 4	2014	217 - 221	Yes	Yes
S A Journal of Clinical Nutrition	S M Kassier, F J Feldman	Vol 27 no3	2014	109 - 113	Yes	Yes
S A Journal of Clinical Nutrition	M H Sedibe, A B Feeley, C Voored, P L Griffiths, C M Doak	Vol 27 No 3	2014	114 - 119	Yes	Yes
S A Journal of Clinical Nutrition	H H Wright, R Ford, C R Botha	Vol 27 No 3	2014	120 - 126	Yes	Yes
S A Journal of Clinical Nutrition	N Nortje	Vol 27 No3	2014	128 - 130	Yes	Yes
S A Journal of Clinical Nutrition	P R Duncan, L D Howe, Z Manukusa, S Purdy	Vol 27 No 2	2014	56 - 62	Yes	Yes
S A Journal of Clinical Nutrition	S-M Van Niekerk, K Grimmer	Vol 27 No 1	2014	18 - 24	Yes	Yes
S A Journal of Clinical Nutrition	C Stevenson, R Blaaw, E Fredricks, J Visser, S Raux	Vol 27 No 1	2014	25 - 30	Yes	Yes
S A Journal of Clinical Nutrition	K Pillay, M Siwela, F J Feldman	Vol 27 No 1	2014	31 - 37	Yes	Yes
S A Journal of Clinical Nutrition	J A Roos, G A Ruthven, J M Lombard,	Vol 26 No 4	2013	194 - 200	Yes	Yes
S A Journal of Clinical Nutrition	H R Davies, J Visser, M Tomlinson, M J Rotheram-Borus	Vol 26 No 3	2013	116 - 122	Yes	Yes
S A Journal of Clinical Nutrition	N Esau, N Koen	Vol 26 No 3	2013	132 - 140	Yes	Yes
S A Journal of Clinical Nutrition	I Cloete, L Daniels, J Jordaan, C Derbyshire, C Schubi	Vol 26 No 3	2013	141 - 146	Yes	Yes



S A Journal of Clinical Nutrition	A Schoonees, T Young, J Volmink, T G Robberson, Havemann	Vol 26 No 2	2013	69 - 74	Yes	Yes
S A Journal of Clinical Nutrition	P Mkontwana, L Steenkamp, J Von der Marwitz	Vol 26 No 2	2013	75 - 82	Yes	Yes
S A Journal of Clinical Nutrition	S M Kassier, F J Feldman	Vol 26 No 1	2013	17 - 22	Yes	Yes
S A Journal of Clinical Nutrition	W Oldewage- Theron, A Egal	Vol 26 No 1	2013	23 - 28	Yes	Yes
S A Journal of Clinical Nutrition	H H Grobelaar, C E Napier, W Oldewage-Theron	Vol 26 No 1	2013	29 - 36	Yes	Yes
S A Journal of Clinical Nutrition	N L Wiles, J M Green, F J Feldman	Vol 26 No 1	2013	37 - 42	Yes	Yes
S A Journal of Clinical Nutrition	C C Lombardo, R Swart, M E Visser	Vol 25 No 4	2012	180 - 185	Yes	Yes
S A Journal of Clinical Nutrition	G Kindra, A Coutsoodis, L Pillay, A Kundness	Vol 25 No 4	2012	186 - 191	Yes	Yes
S A Journal of Clinical Nutrition	J Visser, A Mackenzie, D Marais	Vol 25 No 3	2012	112 - 119	Yes	Yes
S A Journal of Clinical Nutrition	U E MacIntyer, C S Venter, A Kruger, M Serfontein	Vol 25 No 3	2012	122 - 130	Yes	Yes
S A Journal of Clinical Nutrition	A L Toriola, V K Moselakgomo, B S Shaw, D T Goon	Vol 25 No 2	2012	57 - 61	Yes	Yes
S A Journal of Clinical Nutrition	B S Motswagole, H S Kruger, M Faber, K D Monyeki	Vol 25 No 2	2012	62 - 66	Yes	Yes
S A Journal of Clinical Nutrition	E L Kempen, H Muller, E Symington, T Van Eeden	Vol 25 No 1	2012	15 - 21	No	Yes
S A Journal of Clinical Nutrition	D Rankin, U E MacIntyer, S M Hanekom, H S Styn, H H Wright	Vol 25 No 1	2012	27 - 32	Yes	Yes
S A Journal of Clinical Nutrition	N Solomon, C Rosant	Vol 25 No 1	2012	33 - 39	Yes	Yes
S A Journal of Clinical Nutrition	O R Aderibigbe, R L Mamabolo, H S Kruger, H H Voster, A Kruger	Vol 24 No 4	2011	179 - 185	Yes	Yes
S A Journal of Clinical Nutrition	K Pillay, J Derera, M Siwela, F J Feldman	Vol 24 No4	2011	186 - 191	Yes	Yes
S A Journal of Clinical Nutrition	L M Hanekom, G J Gericke, P J Becker	Vol 24 No 4	2011	192 - 198	Yes	Yes
S A Journal of Clinical Nutrition	N L Wiles, J M Green, F J Feldman	Vol 24 No 3	2011	129 - 135	Yes	Yes
S A Journal of Clinical Nutrition	J Mould, A A Grobler. D C Odendaal, L De Jager	Vol 24 No 3	2011	137 - 141	Yes	Yes
S A Journal of Clinical Nutrition	A Abdu, N Ladeira, S Naidoo, S Naicker	Vol 24 No 3	2011	150 - 153	No	No
S A Journal of Clinical Nutrition	D Oosthuizen, W H Oldewage-Theron, C Napier	Vol 24 No 2	2011	75 - 81	Yes	Yes
S A Journal of Clinical Nutrition	H D Goeiman, D Labadarios, N P Styn, S Titus	Vol 24 No 2	2011	90 - 98	Yes	Yes
S A Journal of Clinical Nutrition	W Oldewage-Theron, C Napier, A Egal	Vol 24 No 2	2011	99 - 104	Yes	Yes
S A Journal of Clinical Nutrition	L Daniels, D Jackson	Vol 24 No 1	2011	32 - 38	Yes	Yes
S A Journal of Clinical Nutrition	R Lategan, L Steenkamp, G Joubert, M Le Roux	Vol 23 No 4	2010	197 - 201	Yes	Yes
S A Journal of Clinical Nutrition	M S Leslapeto, S M Smuts, S M Hanekom, J Du Plessis, Faber	Vol 23 No 4	2010	202 - 207	Yes	Yes
S A Journal of Clinical Nutrition	M K Van Zyl, N P Styn, M L Marais	Vol 23 No 3	2010	124 - 130	No	Yes
S A Journal of Clinical Nutrition	S Schoeman, M Faber, N Ford-Ngomane, J Laubscher, Smuts	Vol 23 No 3	2010	140 - 147	Yes	Yes
S A Journal of Clinical Nutrition	W H Oldewage- Theron, A Egal	Vol 23 No 3	2010	149 - 154	Yes	Yes
S A Journal of Clinical Nutrition	I Venter, A Winterbach	Vol 23 No 2	2010	75 - 83	Yes	Yes
S A Journal of Clinical Nutrition	Z J Mchiza, J H Goedecke, E V Lambert	Vol 23 No 2	2010	84 - 89	Yes	Yes
S A Journal of Clinical Nutrition	P A Cooper, K D Bolton, M Makhachane, R M Mphahlele	Vol23 No 2	2010	90 - 95	Yes	Yes
S A Journal of Clinical Nutrition	S Schoeman, CM Smuts, M Van Stulbevenbrg, A Oelofse	Vol 23 No 2	2010	21 - 27	Yes	Yes
S A Journal of Clinical Nutrition	M Faber, A Oelofse, P J Van Jaarsveld, F A M Wenhold	Vol 23 No 1	2010	30 - 38	Yes	Yes
S A Journal of Clinical Nutrition	D Marais, E Hertzog, R Treunicht, M A Alexander, Crywagen	Vol 23 No 1	2010	40 - 45	Yes	Yes
S A Journal of Clinical Nutrition	N Conradie, M G Hrselman, M L Marais	Vol 22 No 4	2009	177 - 184	Yes	Yes
S A Journal of Clinical Nutrition	Z Hattingh, C Walsh, G Joubert	Vol 22 No 4	2009	203 - 207	Yes	Yes
S A Journal of Clinical Nutrition	A Feeley, J M Pettifor, S A Norris	Vol 22 No 3	2009	118 - 123	Yes	Yes
S A Journal of Clinical Nutrition	E Venter, G J Gericke, P J Bekker,	Vol 22 No 3	2009	124 - 129	Yes	Yes
S A Journal of Clinical Nutrition	L Steenkamp, MK Hendricks, H Dippenaar, A Dannhauser	Vol 22 No 3	2009	131 - 136	Yes	Yes

S A Journal of Clinical Nutrition	N L Wiles, M Paterson, J L Meaker	Vol 22 No 2	2009	69 - 73	Yes	Yes
S A Journal of Clinical Nutrition	M R Ghuman, H Saloojee, G Morris	Vol 22 No 2	2009	74 - 79	Yes	Yes
S A Journal of Clinical Nutrition	L Schafer, K Templin, P Dlamini, J M Kruger, E Van Wyk	Vol 22 No 2	2009	81 - 87	Yes	Yes
S A Journal of Clinical Nutrition	K Pillay, E M W Maunder, K L Naidoo	Vol 22 No 2	2009	95 - 98	Yes	Yes
S A Journal of Clinical Nutrition	M L D Sebotsa, A Dannhauser, W F Mollentze, G M Oosthuis	Vol 22 No 1	2009	18 - 21	Yes	Yes
S A Journal of Clinical Nutrition	Z Hattingh, C Walsh, F J Feldman, C J Bester,	Vol 22 No 1	2009	23 - 28	Yes	Yes
S A Journal of Clinical Nutrition	M Sowden, D Marais, R Beukes	Vol 22 No 1	2009	37 - 44	Yes	Yes
S A Journal of Clinical Nutrition	D Schwartz, L Tsolekile, J Zulu, T Puoane	Vol 21 No 4	2008	315 - 320	Yes	Yes
S A Journal of Clinical Nutrition	B M Venter	Vol 21 No 4	2008	323 - 330	No	Yes
S A Journal of Clinical Nutrition	M M Bopape, X G Mbhenyane, M Alberts	Vol 21 No 4	2008	332 - 336	Yes	Yes
S A Journal of Clinical Nutrition	C M Smuts, M Faber, S E Schoeman, J A Laubscher, A J Benade	Vol 21 No 3	2008	117 - 124	Yes	Yes
S A Journal of Clinical Nutrition	H Snyman, M G Herselman, D Labadarios	Vol 21 No 3	2008	127 - 132	Yes	Yes
S A Journal of Clinical Nutrition	T Merlin, G J Gericke, P J Bekker	Vol 21 No 3	2008	141 - 147	Yes	Yes
S A Journal of Clinical Nutrition	D Fincham, M A A Kagee, M R Moosa	Vol 21 No 2	2008	P 7- p 12	Yes	Yes
S A Journal of Clinical Nutrition	P Love, E M W Maunder, J M Green,	Vol 21 No 2	2008	17 - 24	Yes	Yes
S A Journal of Clinical Nutrition	C Martin, D Labadarios, D Marais, E Wentzel- Viljoen	Vol 21 No 2	2008	27 - 33	No	Yes
S A Journal of Clinical Nutrition	L F Mushapi, X G Mbhenyane, L B Khoza	Vol 21 No 2	2008	36 - 41	Yes	Yes
S A Journal of Clinical Nutrition	N P Styn, J Nel, D Labadarios	Vol 21 No1	2008	22 - 26	No	Yes
S A Journal of Clinical Nutrition	M F Urban, K D Bolton, M Mokhachane, M Mphahlele, Bonela	Vol 21 No 1	2008	28 - 32	Yes	Yes
S A Journal of Clinical Nutrition	S Murray, S Tredoux, L Viljoen, M G Herselman, D Marais	Vol 21 No 1	2008	34 - 38	Yes	Yes
S A Journal of Clinical Nutrition	L M du Plessis, B Najaar, H E Koornhof, D Labadarios	Vol 20 No 4	2007	126 - 132	Yes	Yes
S A Journal of Clinical Nutrition	C M Viviers, G J Gericke	Vol 20 No 4	2007	133 - 140	Yes	Yes
S A Journal of Clinical Nutrition	C M Viviers, G J Gericke	Vol 20 No 4	2007	143 - 152	Yes	Yes
S A Journal of Clinical Nutrition	S E P Modjadji, M Alberts,	Vol 20 No 3	2007	89 - 95	Yes	Yes
S A Journal of Clinical Nutrition	T T Holzinger, A S Shaik, G P Hadley	Vol 20 No 3	2007	96 - 99	Yes	Yes
S A Journal of Clinical Nutrition	M L Marais, D Marais, D Labadarios	Vol 20 No 3	2007	102 - 109	Yes	Yes
S A Journal of Clinical Nutrition	M Marais, N Conradie, D Labadarios	Vol 20 No 2	2007	50 -61	Yes	Yes
S A Journal of Clinical Nutrition	S S R Cho, M Alberts	Vol 20 No 2	2007	62 - 68	Yes	Yes
S A Journal of Clinical Nutrition	K M E Petrie, S D Schmidt, C E Schwart, H E Koornhof, C Walsh	Vol 20 No 2	2007	71 - 75	Yes	Yes
S A Journal of Clinical Nutrition	A Dannhauser, C Walsh	Vol 20 No 1	2007	P 6 - P 14	Yes	Yes
S A Journal of Clinical Nutrition	M Faber, A J Spinler	Vol 20 No 1	2007	16 - 24	Yes	Yes
S A Journal of Clinical Nutrition	Z Hattingh, C Walsh	Vol 20 No 1	2007	28 - 36	Yes	Yes
S A Journal of Clinical Nutrition	D Marais, M L Marais, D Labadarios	Vol 20 No 1	2007	39 - 44	Yes	Yes
S A Journal of Psychiatry	A Houidi, S Paruk, B Sartorius	Vol 24 No 1	2018	6 pages	Yes	Yes
S A Journal of Psychiatry	M M Banda, W C W van Staden,	Vol 24 No 1	2018	6 pages	Yes	Yes
S A Journal of Psychiatry	K Peltzer, N Phaswana-Mafuya	Vol 24 No 1	2018	8 pages	Yes	Yes
S A Journal of Psychiatry	S M Mere, S Paruk,	Vol 24 No 1	2018	7 pages	Yes	Yes
S A Journal of Psychiatry	C Nel, L Augustyn, N Bartman, M Koen, M Liebenberg, J Naud	Vol 24 No 1	2018	7 pages	Yes	Yes
S A Journal of Psychiatry	M D Mhlongo, A Tomita, L Thela, V Maharaj, J K Burns,	Vol 24 No 1	2018	4 pages	Yes	Yes
S A Journal of Psychiatry	K Evans, H Geduld, W Stassen	Vol 24 No 1	2018	5 pages	Yes	Yes
S A Journal of Psychiatry	R Jain, C C Chang, M Koto, A Geldenhys, R Nichol, G Joubert	Vol 23 No 1	2017	7 pages	Yes	Yes

S A Journal of Psychiatry	N Pillay, S Ramlall, K J Burns	Vol 22 No 1	2016	6 pages	Yes	Yes
S A Journal of Psychiatry	N Abrahams, A Gevers	Vol 23 No 1	2017	7 pages	Yes	Yes
S A Journal of Psychiatry	K D Swain, B J Pillay, W Kliever	Vol 23 No 1	2017	6 pages	Yes	Yes
S A Journal of Psychiatry	L Fourie, C Kotze, D van der Westhuizen	Vol 23 No 1	2017	7 pages	Yes	Yes
S A Journal of Psychiatry	G Lippi, P J van Staden	Vol 23 No 1	2017	8 pages	Yes	Yes
S A Journal of Psychiatry	I Govender, K Nel, X M Sibuyi	Vol 23 No 1	2017	6 pages	Yes	Yes
S A Journal of Psychiatry	F Styn	Vol 22 No 1	2016	4 pages	Yes	Yes
S A Journal of Psychiatry	K Sukeri, O A Betancourt, R Emley, M Nagotee	Vol 22 No 1	2016	8 pages	No	No
S A Journal of Psychiatry	G P Davis, A Tomita, J N Baumgartner, S Mtshehla, S Nene	Vol 22 No 1	2016	7 pages	Yes	Yes
S A Journal of Psychiatry	R Sundarlall, D Van der Westhuizen, L Fletcher	Vol 22 No 1	2016	6 pages	Yes	Yes
S A Journal of Psychiatry	L Paruk, A B R Janse van Rensburg	Vol 22 No 1	2016	8 pages	Yes	Yes
S A Journal of Psychiatry	M Retief, C Verster	Vol 22 No 1	2016	6 pages	Yes	Yes
S A Journal of Psychiatry	B Marais, U Subramaney,	Vol 21 No 3	2015	4 pages	Yes	Yes
S A Journal of Psychiatry	W M Nel	Vol 21 No 3	2015	2 pages	Yes	Yes
S A Journal of Psychiatry	R A van Schoor, P M Joubert	Vol 21 No 2	2015	3 pages	Yes	Yes
S A Journal of Psychiatry	R K Parshotam, P M Joubert	Vol 22 No 2	2015	6 pages	Yes	Yes
S A Journal of Child Health	L Graham, T Hochfeld, L Stuart,	Vol 12 No 3	2018	90 - 94	Yes	Yes
S A Journal of Child Health	S McLaren, L Steenkamp, A Feeley, J Nyarko	Vol 12 No 3	2018	95 - 99	Yes	Yes
S A Journal of Child Health	K Pillay, N Khanyile, M Siwela	Vol 12 No 3	2018	100 - 104	Yes	Yes
S A Journal of Child Health	D Richards, L Hunter, K Forey, E Christensen, S Cain, Lategan	Vol 12 No 3	2018	127 - 131	Yes	Yes
S A Journal of Child Health	D Evans, N Musakwa, C Nattey, J Bor, E Lonnermak, L Long	Vol 12 special	2018	S 19 - S31	Yes	Yes
S A Journal of Child Health	T Tolla, R Essop, L Fluks, I Lynch, M Mokae,	Vol 12 special	2018	S 32 - S35	Yes	Yes
S A Journal of Child Health	R Essop, T Tolla, I Lynch, M Mokae	Vol 12 special	2018	S 36 - S39	Yes	Yes
S A Journal of Child Health	J L Brown, J M Sales, M Lenha, K Rani, R Moqolo, D Peterson	Vol 12 special	2018	S 40 - S43	No	No
S A Journal of Child Health	C Groenewald, Z Essack, S Khumalo	Vol 12 special	2018	S 57 - S 62	Yes	Yes
S A Journal of Child Health	N F Moroe, V de Androde	Vol 12 special	2018	S 75 - S78	Yes	Yes
S A Journal of Child Health	L Nandlal, R Bimma, T Naicker,	Vol 12 No 2	2018	P 1 - P 5	Yes	Yes
S A Journal of Child Health	D G Sokhela, M N Sibiya, N S Gwele,	Vol 12 No 2	2018	P 1 - P 4	Yes	Yes
S A Journal of Child Health	M Ndlovu, S A Thula, R E M Mphahlele, R Masekela	Vol 12 No 2	2018	P 1 - P4	Yes	Yes
S A Journal of Child Health	P M Obiagwu, B Sangweni, G Moonsamy, T Khumalo	Vol 12 No 2	2018	58 - 62	Yes	Yes
S A Journal of Child Health	J I Wiles, G H Swingler,	Vol 12 No 2	2018	63 - 67	Yes	Yes
S A Journal of Child Health	T Hariram, K L Naidoo, S Ramji,	Vol 12 No 1	2018	P 10 -P 14	Yes	Yes
S A Journal of Child Health	L Jansz, H Buys, M van Dijk, U Rohlwink,	Vol 12 No 1	2018	P 1 - P 20	Yes	Yes
S A Journal of Child Health	N Patel, A Nicola, P Bennet, J Loveland, E Mapunda	Vol 12 No 1	2018	P 21 - P 23	Yes	Yes
S A Journal of Child Health	J C Moundzika-Kibamba, F L Nakwa,	Vol 12 No 1	2018	P 24- P 28	Yes	Yes
S A Journal of Child Health	I Harerimana, D E Ballot, P A Cooper,	Vol 12 No 1	2018	P 29 - P 33	Yes	Yes
S A Journal of Child Health	V Wetherston, S Gangat, N Shange, K Wheeler	Vol 11 No 3	2017	117 - 121	Yes	Yes
S A Journal of Child Health	Y Smit, S Kassier, D Nel, N Koen,	Vol 11 No 3	2017	129 -134	Yes	Yes
S A Journal of Child Health	A Keshave, N Yende-Zuma, L Mubaiwa, M Adhhikari	Vol 11 No 3	2017	135 - 140	Yes	Yes
S A Journal of Child Health	C Feben, T Haw, D Stones, C Jacobs, C Sutton, J Kramberg	Vol 11 No 3	2017	141 - 145	Yes	Yes
S A Journal of Child Health	N C Dlova, T Naicker, P Naidoo	Vol 11 No 3	2017	146 - 148	No	No

S A Journal of Child Health	A Ghoor, G Scher, D E Ballot,	Vol 11 No 2	2017	66 - 70	Yes	Yes
S A Journal of Child Health	O S Momin, G P Hadley	Vol 11 No 2	2017	71 - 74	Yes	Yes
S A Journal of Child Health	J Schoeman, A Kritzinger	Vol 11 No 2	2017	75 - 79	Yes	Yes
S A Journal of Child Health	P F Nzama, C E Napier	Vol 11 No 2	2017	80 - 85	Yes	Yes
S A Journal of Child Health	M Muzigaba, B Sartorius, T Puoane, B van Wyk, D Sanders	Vol 11 No 2	2017	86 - 92	Yes	Yes
S A Journal of Child Health	J F Engelbrecht, N Freeman, R M Rautenbach	Vol 11 No 2	2017	93 - 95	Yes	Yes
S A Journal of Child Health	A Truter, N Schellack, J C Meyer,	Vol 11 No 1	2017	P 5 - P 10	Yes	Yes
S A Journal of Child Health	F Malongane, X G Mbhenyane,	Vol 11 No 1	2017	P 11 -P 15	Yes	Yes
S A Journal of Child Health	M Reddy, S Singh	Vol 11 No 1	2017	P 16 - P 20	Yes	Yes
S A Journal of Child Health	P Appalsamy, N H McKerrow	Vol 10 No 4	2016	171 - 175	Yes	Yes
S A Journal of Child Health	B P S Hlatshwayo, S Ntshangase, F P R Villiers	Vol 10 No 2	2016	111 - 115	Yes	Yes
S A Journal of Child Health	O S Katibi, N C Dlova, A V Chateau, A Mosam	Vol 10 No 2	2016	121 - 125	Yes	Yes
S A Journal of Child Health	N Moroe, N Kathrada	Vol 10 No 2	2016	126 - 129	Yes	Yes
S A Journal of Child Health	C Pike, M Pike, A Kritzinger, E Kruger, M Viviers	Vol 10 No 2	2016	130 - 133	Yes	Yes
S A Journal of Child Health	H Finlayson, L Smit, T M Esterhuizen, M Kruger	Vol 10 No 2	2016	134 - 138	Yes	Yes
S A Journal of Child Health	L Petrocchi-Bartal, K Khoza-Shangase	Vol 10 No 2	2016	139 - 143	Yes	Yes
S A Journal of Child Health	K Baillieu, K Khoza-Shangase	Vol 10 No 1	2016	20 - 24	Yes	Yes
S A Journal of Child Health	D Classen, J Pieterse, J van der Linde, E Kruger	Vol 10 No 1	2016	25 - 28	Yes	Yes
TOTALS					APPROVAL: YES: 438 = 87,6%	INFORMED CONSENT: YES: 439 = 87,8%
					APPROVAL: NO: 62 = 12,4%	INFORMED CONSENT: NO: 61 = 12,2%

**APPENDIX C**  
**Findings Table**

Variable	Number of articles reviewed	Number of Yes/s	Number of No/s
Ethics approval	500	438 (87.6%)	62 (12.4%)
Informed consent	500	439 (87.8%)	61 (12,2%

**APPENDIX D**  
**Number of Journals and Articles Table**

<b>Journal</b>	<b>Number of articles</b>	<b>% of articles</b>
<b>South African medical Journal</b>	156	<b>31.2</b>
<b>South African Journal of HIV Medicine</b>	28	<b>5.6</b>
<b>South African Journal of Obstetrics and Gynaecology</b>	46	<b>9.2</b>
<b>Occupational Health South Africa</b>	11	<b>2.2</b>
<b>South African Journal of Psychiatry</b>	27	<b>5.4</b>
<b>Health South Africa Gesondheid</b>	3	<b>0.6</b>
<b>South African Respiratory Journal</b>	2	<b>0.4</b>
<b>South African Journal of Clinical Nutrition</b>	116	<b>23.2</b>
<b>South African Journal of Child Health</b>	61	<b>12.2</b>
<b>South African Journal of Occupational Therapy</b>	16	<b>3.2</b>
<b>South African Journal of Surgery</b>	3	<b>0.6</b>
<b>South African Journal of Bioethics and Law</b>	1	<b>0.2</b>
<b>South African Journal of Oncology</b>	4	<b>0.8</b>
<b>South African Journal of Gynaecological Oncology</b>	2	<b>0.4</b>
<b>South African Journal of Critical Care</b>	24	<b>4.8</b>
<b>TOTAL</b>	<b>500</b>	<b>100%</b>

# APPENDIX E

## BREC Approval Letter



UNIVERSITY OF  
KWAZULU-NATAL

INYUVESI  
YAKWAZULU-NATALI

RESEARCH OFFICE  
BIOMEDICAL RESEARCH ETHICS ADMINISTRATION  
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Private Bag X 54001  
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4000  
KwaZulu-Natal, SOUTH AFRICA  
Tet: 27 31 2604769 - Fax: 27 31 260-4609  
Email: [BREC@ukzn.ac.za](mailto:BREC@ukzn.ac.za)

Website: <http://research.ukzn.ac.za/Research-Ethics/Biomedical-Research-Ethics.aspx>

21 March 2019

Mr AK Nzuzza (201508278)  
School of Social Sciences  
College of Humanities  
[Arthur@mut.ac.za](mailto:Arthur@mut.ac.za)

Dear Mr Nzuzza

Protocol: Research Ethics Committee approval and participant consent in South African  
Biomedical Research Journal Articles (2007-2017)  
Degree: M SocSc (Health Research Ethics)  
BREC REF: EXM145/19

I refer to your application to BREC received on 07 March 2019 and wish to advise you that  
exemption of ethics review has been granted for this study.

Please ensure that you have Postgraduate approval for your protocol before commencing with  
your research.

This exemption will be noted at the next Biomedical Research Ethics Committee meeting to be  
held on 09 April 2019.

Yours sincerely

  
Prof V Rambiritch  
Chair: Biomedical Research Ethics Committee

cc: (supervisor) [wassenaar@ukzn.ac.za](mailto:wassenaar@ukzn.ac.za)