

# Exposure to primary healthcare for medical students: experiences of final-year medical students

Nyangairi B, Bsc Hons (Administration) Couper ID, BA, MBBCh, MFamMed, FCFP (SA) Sondzaba NO, ND MedTech, BTech, MSc (Healthcare Management)  
Division of Rural Health, Department of Family Medicine, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa

Correspondence to: Prof Ian Couper, e-mail: [Ian.Couper@wits.ac.za](mailto:Ian.Couper@wits.ac.za)

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## Abstract

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**Introduction:** Recognising the importance of primary healthcare in the achievement of the 1997 White Paper for the Transformation of the Health System and the Millennium Development Goals, the Faculty of Health Sciences of the University of the Witwatersrand introduced an integrated primary care (IPC) block. In a six-week final year preceptorship, medical students are placed in primary healthcare centres in rural and underserved areas. This article describes the experiences of medical students during their six weeks in the IPC block.

**Methods:** The study was qualitative, based on data collected from the logbooks completed by the students during the IPC rotation. A total of 192 students were placed in 10 health centres in the North West and Gauteng provinces in the 2006 academic year. These centres included district hospitals, clinics and NGO community health centres.

**Results:** The students reported that the practical experience enhanced their skills in handling patients in primary care settings. They developed an appreciation of primary healthcare as a holistic approach to healthcare. The students attained increased levels of confidence in handling undifferentiated patients, and became more aware of community health needs and problems in health service delivery.

**Conclusions:** Exposure to the IPC block provided a valuable experience for final-year students, as it is critical for orienting students to the importance of primary healthcare, which is essential for the realisation of targets identified in the national health policy.

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## Introduction

The 1997 White Paper for the Transformation of the Health System expressed the commitment of the government of South Africa to transform healthcare and provide primary healthcare for marginalised and underserved communities.<sup>1</sup> At the University of the Witwatersrand (Wits), the division of Rural Health, with the support of the Faculty of Health Sciences, sought to promote this goal by increasing the exposure of students to primary care settings.

Traditionally, medical education has focused on the inpatient admitted to hospital, attended to by a team of consultants and registrars.<sup>2-4</sup> However, there has been a paradigm shift internationally, with increased emphasis being placed on learning in outpatient settings. This shift was given impetus by the renewed understanding that doctors become competent at making judgments through the experience of treating patients under appropriate guidance and supervision.<sup>4-6</sup> Learning in primary care settings has also gained momentum in developed countries

as a result of the increased costs of inpatient care, the availability of advanced technology for complex diagnoses and the convenience of outpatient care for the patients.<sup>5</sup>

The integrated primary care (IPC) block was introduced by the Wits University Faculty of Health Sciences in 2006 to orientate medical students to primary healthcare and to sharpen their skills. The IPC block is undertaken to provide medical students with practical learning experiences outside the traditional tertiary training hospitals. For the first time in the curriculum, medical students are confronted with the practical task of taking responsibility for providing care to patients without the constant presence of consultants and registrars.

The rotation's purpose was to orient medical students to primary healthcare, as research has shown that primary care settings enhance students' capacities in a number of ways. They allow students to care for patients with chronic diseases. They provide a setting for health promotion and disease prevention. Students' communication skills with patients are enhanced, and they also allow students to

familiarise themselves with the social, financial and ethical aspects of medical care.<sup>5-7</sup>

In 2006, students were placed in ten areas in peripheral and rural sites in the Gauteng and North West provinces. The sites were intended to expose students to settings that were outside their daily experience and to increase their abilities to cope in and adapt to different settings. The students were placed under the supervision of a local clinician who worked at the site. In addition, there was an academic supervisor who was in charge of all students on rotation at each site. The students were also able to access the academic coordinator and university staff through regular teleconferencing.

The block has a number of objectives that the students are to fulfil by the time they leave the various health sites. These include the following:

- manage patients with undifferentiated conditions,
- recognise and manage commonly presenting problems in primary care,
- describe and perform care of patients with chronic conditions,
- apply the integrated management of childhood illnesses (IMCI) approach in consultations with children,
- perform deliveries on low-risk mothers,
- conduct family planning sessions and antenatal consultations,
- describe follow up and the importance of continuity of care, and
- understand the structure and organisation of primary healthcare and its strengths and limitations.

The aim of this study was to explore the experiences of final-year medical students exposed to primary healthcare settings and to evaluate the perceptions of students of the integrated primary care block. While a number of issues emerged from this study, the article focuses specifically on the experiences of medical students during the six weeks in the integrated primary healthcare block.

## Methods

A number of health facilities, such as district hospitals, clinics and community health centres, are used for the IPC block. The sites used in 2006 included the following hospitals and attached clinics: Germiston, Klerksdorp, Kopanong, Dr Yusuf Dadoo, Mafikeng, Taung, Zeerust-Lehurutshe, Lichtenburg, Carletonville and Alexandra Community Health Centre. The students were issued logbooks that contained a number of sections on self-assessment, a daily journal on activities, lessons learnt, a record of consultations done and reflections on activities at the end of the block.

The data used for the study were collected from the logbooks that the students complete while undergoing their six weeks of practical exposure to primary healthcare. A total of 192 final-year medical students were deployed to

10 health facilities in rural and underserved areas in 2006. From the population of 192 students who participated in the rotation, we selected the logbooks of 100 students. The sample was made up of 57 males and 43 females. Care was taken to include students from all the health facilities that students had been placed in, and therefore 10 logbooks were selected from each site. Although the health facilities were a variable that could be analysed, this was beyond the scope of this study. Data were collected from one section of the logbook, in which the students reflected on their learning and practice of various aspects of primary healthcare. They discussed their skills in variables such as the treatment of undifferentiated patients, counselling, consultation skills, understanding of referral pathways, treatment and care of chronic patients.

In order to reduce bias, data analysis was conducted by an independent researcher who did not participate in teaching and assessing the students. Thematic content analysis was used to analyse qualitative data from the student logbooks. The purpose of thematic content analysis is to convert raw phenomena into data that can be treated in a scientific manner so that a body of knowledge can be built up. Content analysis explores the content of the discussion and collects main themes that emerge, and helps to analyse the problem. This enabled the researcher to draw similarities and differences from the data. Themes were extracted from the data, as recurring themes were collated.

Ethical clearance for this study was obtained from the University of the Witwatersrand Human Research Ethics Committee.

## Results

### Improvement in consultation and other skills

Students exposed to the block reported an improvement in their consultation skills. While most indicated that they initially had been nervous during the compulsory observed consultation sessions, they felt that this was a great learning experience and that the feedback was good for them. One student noted that observed consultation sessions “pointed out my weaknesses regarding consultation and I feel I have improved a great deal”. The students noted that observing doctors and nurses during consultations was a beneficial learning experience.

### Application of knowledge

The students reported that the experience allowed them to apply the theoretical knowledge acquired during their previous years. Most of the students emphasised that the IPC block provided the link between theory and practice. One student noted that antenatal consultations allowed them to “use principles learnt in Obstetrics with uncomplicated and complicated antenatal patients”.

In addition, the students reported that knowledge and skills gaps were exposed during this period. They learnt to

appreciate their strengths and weaknesses and discover areas in which they had to improve. One student reported, “I feel much [more] confident about seeing patients but I still need to improve on my consultation skills”. While the students felt that they had learnt much about TB management, many reported that they had to improve their skills of interpreting X-rays. The students also did not feel quite ready for mental healthcare, since they had not had sufficient exposure to it. Most students expressed the need to improve counselling skills.

#### **Increased capability to deal with undifferentiated patients**

The students reported that their ability to deal with undifferentiated patients improved greatly during this time. This is exemplified by the observation, “I got to consult different conditions and was able to get first-hand experience in all things which would have been impossible in a tertiary hospital”. The students reported improved skills in taking histories and in examination. They also reported gaining wide experience and developing an ability to formulate an integrated management plan. They felt that they were able to manage patients on their own for the first time. They learnt to manage many different diseases and different types of patients at the primary healthcare level. Students also indicated enhanced competencies in procedures such as suturing.

#### **Increased confidence and self-esteem**

Confidence is essential in the practice of medicine and the majority of students made comments such as “I gained confidence” and “I am not as afraid of undifferentiated patients as I was before”. Levels of confidence increased as the students were given opportunities to practise the theoretical skills they had learnt. Their self-esteem also underwent a boost, as they felt they were making a valuable contribution to communities. One student reported that “it felt good to be needed and to make a difference”. Students also reported “feeling confident in handling emergency situations and planning correct management”.

#### **An eye to see inefficiencies in the health system**

Exposure to the primary healthcare system provided students an opportunity to appreciate systemic issues. Students were able to experience the staff shortages prevalent in the facilities, as they indicated how their presence served to “take off the load on the overburdened health staff”. They were able to see the impact of staff shortages on the quality of care given to patients, as one of the recurring concerns of the students was the “long waiting times” for patients. The students became aware of inefficiencies in the referral system. As one student reported: “I learnt the difficulties in the referral system and the frustrations felt by patients due to delays”. The students were also exposed to the “ways family members and patients get treated during referral at the sending and receiving places.”

#### **An appreciation of primary healthcare and other disciplines**

The students came to appreciate the importance of primary healthcare as a holistic approach. They were able to see the essence of primary care as an essential form of care for underserved and poor rural communities. The IPC block offered students a unique opportunity to understand the health system and their role in it.

The students’ exposure to the primary healthcare block also showed them areas in which they might like to specialise in the future. One student reported that “I had not realised how much I enjoyed paediatrics until now and would think of furthering with them”. The exposure also helped students appreciate the importance of primary healthcare and family practice to reduce health problems in communities.

#### **Exposure to community health problems**

Being in a community health centre gave students an opportunity to engage with communities and to understand their health needs. One student indicated that he “realised that TB is still a problem in this country”. While in the community and doing home visits, the students were made aware of the living environments of patients and this enhanced their ability to appreciate the link between the environment and health problems in communities. One student stated that home visits “allowed me to see how patients lived and it was much easier to relate and form a holistic picture of the patient”. Another student explained that “I was exposed to the poverty and challenges people face and was able to relate them to disease and health and this gave me a holistic picture of health issues in the community”. The exposure allowed students to appreciate the need for healthcare that takes into account the patients’ conditions of life so that the care can be meaningful.

#### **Innovation**

The integrated primary care block also provided an opportunity for students to be innovative. One group of students reported how they facilitated the formation of a support group for people with chronic conditions so that patients and the healthcare team could share experiences and be support pillars for one another. The self-esteem of the students increased as they felt they had made a difference in the community.

#### **Discussion**

Medical schools are increasingly using non-traditional learning environments and the IPC rotation is one such example. Overall, the students benefited from the exposure provided by the IPC block. The exposure allowed them to adapt to and be able to work in different contexts, as well as appreciate the different health needs of communities. The findings confirm the main pillars of the Alma Ata Declaration of 1978, which argues for the promotion of primary healthcare, as it addresses the main health problems of a

community through the provision of “promotive, preventive, curative and rehabilitative services.”<sup>8</sup> This suggests the need to increase the exposure of students during training in medicine so that they can develop an appreciation of the community health needs. In addition, the students also were able to apply theoretical knowledge to practical situations. The development of expertise is a long process and practical exposure allows practitioners to reconstruct their expertise.<sup>9</sup> The IPC block was a step on the long road towards creating a practitioner with expertise who is able to work in different contexts, and who possesses social and communications skills that will be used in later practice.

A significant portion of medical care can be learnt in the community. This includes the early presentation of diseases, the essence of continuous care, disease prevention, health promotion and the effects of social status on health.<sup>10,11</sup> Research in community placements has revealed that they are valuable to students and communities.<sup>12</sup> However, there has been concern whether the experience will expose students to a reasonable number of clinical problems. The students indicated that they were able to deal with a wide variety of undifferentiated patients, which was invaluable for their learning. The findings of this study confirmed the benefits of such community-based rotations for students.

The IPC block allowed students to put theory into practice. Practical experiences worked to improve the skills and capabilities of these students in clinical practice. Exposure to primary healthcare also honed their decision-making and problem-solving skills, as they had to make decisions regarding admission, referral and treatment regimens in different situations. The challenges of working life for which students in higher education should be prepared cannot be accomplished through theoretical knowledge alone, hence the importance of exposure to real-life situations.<sup>9</sup> Working in medicine requires situational knowledge, professional experience and sound judgment, all of which come with practice.<sup>4,12</sup> Primary care-based experiences such as these provide a safe environment for students to practise and enhance their skills.

Research has revealed that lack of exposure to underserved communities has been one of the reasons why medical students are reluctant to practise in these areas.<sup>10,11,13</sup> Good experiential learning through activities such as the IPC rotation prepares students to provide high-quality healthcare in such settings in the future.<sup>3</sup>

An important limitation of this study is that the students' comments were made in a logbook that is assessed as part of their year mark. This may have influenced them to focus on the more positive aspects of the experience.

## Conclusion

This small study sought to explore the experiences of final-year medical students in primary healthcare settings. The IPC rotation provided a valuable experience for medical

students to synchronise theory and practice. The experience provided a safe space to practise skills and boosted the students' confidence. It is hoped that the exposure to primary settings will socialise students to appreciate the value of primary healthcare and, in the long run, to consider careers in that direction.

Given the importance of primary healthcare for the achievement of national and international commitments on health, exposing students to such settings helps them appreciate the importance of primary healthcare and family medicine. The block also sensitised students to the health needs of rural and underserved communities and pointed to the deficiencies in the health system. The exposure affords students an opportunity to consider these communities when considering their future career options. The long-term effect of this will be subject to ongoing research.

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