ORIGINAL

RESEARCH

PROJECT TITLE

REFERRAL OF PATIENTS BETWEEN PRIMARY AND SECONDARY LEVELS OF HEALTH CARE IN THE PORT ELIZABETH METROPOLE.

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ABSTRACT

Background

The referral system is an important component of the health care system. In public health facilities, a high number of patients' attendance has lead to a huge burden on the secondary and tertiary level of the care system in terms of manpower, equipments and resources. Public health in South Africa consumes around 11% of the government's total budget. The state contributes about 40% of all expenditure on health; the public health sector is under pressure to deliver services to about 80% of the population [1].

Despite the huge spending on health care in most developing countries, health outcomes and services remain poor. Few studies are available to give insights into reasons for this disparity. Therefore the findings of this may help to explain some of the reasons for this overburden of public health facilities and further to make recommendations on how health service delivery may be improve on. The results of this study can be useful in future planning; this may lead to a reduction in huge health expenditure incurred by most developing countries.

Methods

A cross sectional survey of three different groups of people which comprises of 273 patients, 28 referral centre participants and 19 referring centre participants was carried out. All patients referred from Motherwell community health centre to Dora Nginza hospital were eligible for the study.. Questionnaires were interview administered to patients after they had finished consultations in Dora Nginza Hospital. Health professionals from both facilities were also interviewed with the use of self administered questionnaires.

Results

Three out of every four patients interviewed were of the opinion that their referral to hospital was appropriate which is consistent with the results from referring health professionals, eighteen of nineteen respondents. However, only one-quarter (7) of the referral centre health professionals

felt the referrals from referring centre to hospital were appropriate $p<0.01$.The majority of the patients were satisfied with the level of service received at the referral centre. 77% (210) reported that the staff at the referral centre was friendly and 84% (230) were happy with the explanation given for their illness. However, a source of concern is that, in most of the referred patients 58% (215), there was no formal response back to their primary care.

In the referring centre, participants identified transportation of patients to referral centre as the major problem encountered when referring patients 68 % (13), whereas 32 % (6) felt it is communication. In addition, 73 % (14) were of the opinion that transportation was inadequate and 89 % (17) reported the response rate of transport was unsatisfactory. In the referral centre, results showed participants were more concerned about the adequacy of information provided in the referral letters with 78% (22) reporting they were often not adequate information on the referral letters. However, half of the respondents agreed that they do not have clear referral guidelines.

Conclusion

Primary care health professionals and patients in this study view the referrals to higher levels of care as appropriate. However, the referral centres health professionals were of the opinion that most referrals were inappropriate. The opinion of the referral centre can be attributed to their negative attitudes towards referrals. The referral centres needs to provide more support to primary care for a more efficient referral system .They also need to improve on the continuity of care by providing feedback to referrals. On the other hand, the primary health care needs to be strengthened in terms of resource allocation in order to gain more confidence from both patients and referral centres.

DECLARATION OF ORIGINALITY

I Oluwatoyin Aliu Odufuwa hereby declare that this dissertation is my own idea and the result of my own work; it has not been submitted for any degree or examination at any other University, and all the sources and I have used or quoted have been indicated and acknowledged by complete references.

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Signature

INTRODUCTION

The referral system is a key organizational structure for the referral of patients from primary health care to a secondary or tertiary level of care. Primary care physicians are responsible for defining patients who need secondary or specialist care [2]. In theory, primary health care professionals act as the gatekeepers at the primary level to the more specialized and more expensive secondary health-care. Presently the referral system in the Port Elizabeth Metropole and South Africa as a whole is perceived by some to be inefficient and existing protocols regarding drainage areas are not adhered to by the patients. A South African National Department of Health policy on quality in health care identified inadequate referral system as one of the problems with quality health care in South Africa [3]. As a member of the community, the researcher therefore used the opportunity to look into the problems and challenges faced by patients who need referral in the Metropole. This was done with the view to make recommendations on ways of improving the referral of patients between different levels of care. This research also aims at identifying some major problems encountered by various groups of health care providers in referral of patients.

Referral of patients from primary care to secondary care and then back to primary care is an important activity in any health care system and optimal referral systems are important for the effectiveness, safety and efficiency of medical care. There is a transfer of responsibility for some aspects of patient care from primary to secondary health care. Patients are referred to specialist care to in order to obtain advice on the diagnosis, treatment plan or management or in cases where specialized care procedures are required or when therapeutic options in the primary care system are exhausted [4]. Clinical factors affecting referral decisions include characteristics of the presenting health problem, the burden and severity of co morbidities, and patient preferences for various treatments and outcomes. [5].

Since 2004, in Germany, patients that access the services of a specialist directly are required to pay an extra fee if they were not referred by their general practitioners. The German national data showed that since the introduction of the fee, there has been a tremendous increase in the number of referrals from general practitioners or primary healthcare providers to secondary healthcare provider. This has thus enhanced the need for referral systems and good communication strategies between all parties involved in the process. [6]

The way that general practitioners and hospital consultants interact has important implications for any health care system. Primary health care is usually the first contact for patients and the point of access to relatively scarce and expensive specialist services. For this reason, the relationship between these two main branches of the medical profession has received a considerable amount of interest though it has rarely been systematically researched. [7]

Referral is a critically important aspect of the health care system, yet with a poorly understood process and mechanism.. Furthermore, there is considerable evidence that the referral process is sub optimal with unexplained variations in referral rates.[8] This suggests that there is still some degree of inappropriate patient referral, with patients consuming health care resources that could have been used to provide other services. Also some patients managed inappropriately under primary care settings, would have benefited more if they were being managed under specialist care.

In order for referral to be successful, good communication between primary and secondary care doctors is essential. Communication between doctors with different expertise and experience can serve as a means of education for both parties.[9] However, this fact is often neglected by general practitioners who feel that they have little to contribute to the expertise of their specialist colleague.[10] Negative perceptions between consultants and general practitioners can lead to resentment and strained professional relationships. Furthermore, general practitioners claim that apart from the fact that the communication process is often delayed, specialist response is usually

irritating, discourteous and belittling. [11] On the other hand, some specialists argue that most of the referrals are not appropriate and that primary care providers should try to do a lot more for the patient before referring them. [14] The big question here becomes to what extent can a referral be regarded as appropriate?

Policy makers tend to regard high levels of referral as inefficient, and there is a feeling that many of these referrals are inappropriate. However, little is known about what is ‘appropriate’ [2] . According to Coulter, an appropriate referral should be the best treatment option for the patient, be timely in the course of the disease so that effective treatment is possible, effective in achieving treatment goals and cost effective. Judging appropriateness of a referral needs to take into account the different objectives and the decision process of a referral has proven to be quite complex. [7]

In some studies, hospital consultants were critical of general practitioners referral behaviors. [12] In one study, 55% of hospital consultants across a range of specialties felt that the general practitioner could have done more before referring the patient. Other studies suggest that general practitioners do refer appropriately. In post-referral discussions between general practitioners and consultants, specialists felt that most of the cases referred had been appropriate for hospital management.[13] In Cambridge, consultants reviewed 521 general practitioner referrals. Overall, only 9.6% were judged to be inappropriate. In the same study, general practitioner reviewed 308 cases for which referral guidelines were available and judged 15.9% to be inappropriate. [14] General practitioner also reviewed referrals in Elwyn and Stotts's study and found 34.0% to be inappropriate. Of these, most were felt to be due to a lack of resources (e.g. no access to a community psychiatric nurse), lack of knowledge, or required specialist skills and procedures. [13] Using subsequent hospital admission as a proxy for appropriateness, Moss *et al.* demonstrated that 91.0% of urgent referrals to general surgery were admitted. [15] This may be related to the specialty as Coulter has shown that referral rates to out-patient clinics and subsequent admission are higher for general surgery than for any other specialty. [16]

A Dutch study demonstrated that 57% of referrals from high referring primary care physician and 55% from average referring primary care physician had clear medical indications for the referral. [17] Using subsequent admission as a proxy for appropriateness, Coulter demonstrated that practices with higher referral rates also had higher admission rates, casting doubt on the idea that high referring practices were referring patients inappropriately.[16] However, referral rates themselves tell us nothing about the appropriateness of those referrals. Average referrers may refer as inappropriately as high or low referrers. Wilkin and colleagues suggested that, in theory, all consultations with a primary care physician can be classified in terms of the beneficial or non-beneficial. This would be derived from a referral to hospital, with the benefits of referral outweighing the benefits of continuing primary care in only the minority of consultations. [8]

In the opinion of the researcher, of importance is the reduction of inappropriate referrals, where no benefit is noticed, and an increase in appropriate referrals, where benefits are observed. Simply analyzing the referral rate itself does not necessarily give a true indication of appropriate and inappropriate referring practices. Thus, whether a primary care health provider is a high, average or low referrer is less important than the percentage of appropriate referrals made. Moreover, in order to ascertain the appropriateness of referrals, one must also look into the outcomes of such referrals.

In Sullivan's study, patients were asked whether their symptoms had improved 2 years after an initial referral to either a rheumatology, vascular surgery or dermatology clinic: 8% felt their condition had been cured; 38% felt it had improved; and 46% felt it was unchanged.[18] However, there was no clinical verification as to whether the conditions had improved or not, indicating that assessment of appropriateness with regard to referrals is quite challenging. Most studies rely on the view of the specialist as to what is and is not appropriate, and this view often is in disagreement with the referring centre and with the patient. A lack of data on outcomes also makes it difficult to judge appropriateness. Studies are required which take account of both the referring health practitioner and patients' views and which attempt to identify and track patients who are not referred to determine if they have the same, or different, outcomes. Until such

studies are carried out, great care must be taken in passing judgment on practices which are high or low referrers compared with a numerical norm.

Finally, the conceptual foundations of primary care provide further insight into how clinical factors may influence referral to specialty or secondary care. A defining feature of primary care is the provision of a comprehensive set of services that meets the majority of a population's health needs. [19] According to Forrest's study, primary care physicians are more likely to make specialty referrals for patients with uncommon problems than those with common conditions. This finding highlights the responsible judgment primary care physicians employ in recognizing the boundaries of their scope of practice. In other words, practice prevalence is a defining feature of the primary care–specialty care interface. [5]

AIM

The overall aim of the project is to improve the patient referral system between different levels of care by identifying the major factors associated with poor patient referral between different levels of care in the Port Elizabeth Metropole.

OBJECTIVES

The objectives of the research were:

- To determine the number of patients referred between Motherwell Community Health Centre (MCHC) and Dora Nginza hospital (DNH) over the past year period (January to December 2009).
- To determine the ratio of referrals amongst different health care practitioners.
- To determine the major indications for referrals.
- To identify the factors associated with poor patient referrals between the various levels of health care in the Port Elizabeth Metropole
- To assess current levels of existing communication between primary and secondary health care for example quality of referral letters to and fro.
- To make recommendations on how problems encountered with referral of patients may be improved on.

Primary care physicians develop greater experience and expertise for health problems with which they are familiar than those that occur less often. It follows that they would seek specialist assistance for uncommon health problems. However, empirical evidence for this effect is currently lacking. This study seeks to improve knowledge on the appropriateness of patient referral in my community-Port Elizabeth Metropole. The overall gains of the research should be great clinical benefit for optimum health care delivery, reduction in cost of health services and avoid duplication of services presently being experienced.

In the South African community, this will serve a great benefit especially with the current overburden on public health facilities. In view of the above, the researcher thus seeks to investigate the patient referral between Motherwell Community Health Centre and the Dora Nginza hospital in the Port Elizabeth's Nelson Mandela Metropole and the appropriateness of these referrals.

METHODS

Study design

The study design is a cross sectional descriptive study.

Setting and study population

The study population used for this research includes:

- Patients referred from Motherwell community health centre to casualty/specialist outpatient department in Dora Nginza Hospital in the Port Elizabeth.
- Medical officers in the Motherwell community health care centre and Dora Nginza hospital.
- Specialists in Dora Nginza hospital. The specialist departments here are Family Medicine, Internal Medicine, Pediatrics and child care, Obstetrics and Gynecology.
- Nursing sisters in both Motherwell comprehensive health centre and Dora Nginza hospital.
- Other allied health professionals.

The intention to use health professionals in the study population helped in identify the various challenges and problems they encountered in referral of patients from both sides. This will also assist in comparing the views of both sides in the referral chain as this may differ.

Questionnaires were administered to the three major research groups. This comprises of patients, referring health professionals in Motherwell Community Health centre and receiving health professionals in Dora Nginza Hospital.

Sampling method

The sampling method used for this research is consecutive (quota) sampling which is appropriate for descriptive research studies.

Questionnaires were interview administered to patients after they had consulted with health care providers in the referral centre. Most patients were interviewed in the hospital dispensary while

they were waiting for medications. Patients were more cooperative in responding to questions here. The referral centre questionnaires were self administered to participants in their consulting rooms, offices and morning meetings. The morning meetings ensured a captive audience which reduces the chance of influence from other people when participants are completing questionnaire. Lastly the referring centre questionnaires were also self administered to the participants. Completed self administered questionnaires were collected from participants within one week.

Measures

Patients' interview took an average of 20 minutes per person.. Patients eligible for the study were those referred from Motherwell Community Health Centre, these patients were interviewed in various clinical departments at Dora Nginza Hospital. As mentioned earlier, a larger percentage of the patients were interviewed in the dispensary as the patients here were more cooperative. They were also not intimidated by the presence of nursing staff and doctors. Three research assistants were employed to assist participants to complete the questionnaires. The research assistants were from the community and helped translate the questionnaires into the local language. They received training on the study objectives, sampling procedures, data collection and confidentiality before they begun the field work.

In the patient group, questions asked include age, gender, occupation, and marital status. Other questions were about the appropriateness of referrals, problems encountered during and after referrals process. In addition, the level of satisfaction with the referral and their opinion on the communication level between the two centres was ascertained. The measurement scale of response was a yes, no or unsure format. An informed consent was obtained from patients before they were interviewed.

In the referring centre, the targeted participants were mainly medical doctors and nurses involved in referral of patients. The facility had only 3 full time medical officers, all of whom were interviewed. An informed consent was obtained before questionnaires were administered. This was preceded by explanation of the study. Questions asked include age, gender, marital status, occupation. Additional questions asked were about the appropriateness of referral, problems with referral, main indication for referrals, current existing level of communication, attitudes of

receiving doctors, responses to referrals, transport and paramedic services in the area and their level of satisfaction with referral system between their facility and the referral centre.

The referral centre participants comprise of medical specialists, medical officers, nurses and allied health professionals. Various departmental heads were consulted and permission was sought to administer questionnaire at their morning meetings. Participants completed the questionnaires on individual basis. Informed consent was also obtained prior to completion of questionnaires. Questions were asked on age, gender, occupation and marital status. Other questions include appropriateness of referral from the referring centre, main indications for referral, main source of referral, attitude towards referrals. In addition, questions were also asked on the existing level of communication, problems with referrals, quality of referrals and their responses to referrals.

Data analysis

Various data for each group were coded and entered into an excel file. The data was then sent to University of Stellenbosch centre for statistical consultation for analysis. All variables were presented graphically in form of histogram, tables and frequency tables. This helped to see the nature of distribution and enabled outliers to be identified. The frequency tables presented the characteristics of continuous variable which include the mean value, median, mode, quartiles, maximum and minimum values, standard deviation, upper and lower quartile. Other variables presented in the frequency tables were the count, cumulative count, percent and cumulative percent. Comparison of the referral centre group variables and that of the referring centre was presented in the form of 2 way summary table and categorized histogram. Analysis of variance (ANOVA) was used to compare continuous variables with nominal variables. A value of 0.42 indicates that there is no statistical significant difference between the groups. A p value of < 0.05 is conventionally accepted to indicate statistical significance. Other statistical tests used for analysis include:, chi-square, Kruskal-Wallis , Bonferroni and Mann-Whitney. All data were analyzed using STATISTICA 8 which is referred as StatSoft Inc.(2008) STATISTICA(data analysis and software system), version 8. www.statsoft.com

Ethical consideration

Confidentiality, anonymity and participant privacy was maintained throughout the study. Informed consent was obtained from participants before questionnaires were administered. The University of Stellenbosch ethics committee gave approval for the study. Permission letters were also obtained from the local authorities. This includes the Medical superintendent of Dora Nginza Hospital, the district health manager, and the Eastern Cape Department of Health. The Eastern Cape Department of Health in their letter of approval to carry out the study also stated that the researcher may be invited to present findings and recommendations. I f implemented, this may lead to improvement in the referral system in the province which is the aim of this study.

Time frame (see main proposal)

The estimated duration for the whole research was about 8 months from February to August 2010.

RESULTS

Three different groups of people which comprise of 273 patients, 28 referral centre participants and 19 referring centre participants were interviewed. The referring center group recorded the highest response rate at 92%, followed by the referral centre group at 84% and patients group at 72%.

PATIENTS' RESULTS

Sixty-two percent (169) of the patients were females and 38% (104) were males. The majority (66) of the patients were in the 30-40 years age group bracket. The mean age was 39 years, median of 38 years and standard deviation 16.6. In addition, 60% (165) of patients interviewed were single. Eighty one percent (219) of patients interviewed were unemployed; this could likely be due to the fact that the research was done in public health facility setting.

Table I shows that 75% (206) of patients interviewed were of the opinion that their referral to hospital was appropriate which is consistent with the results from referring health professionals of 95% (18). However, only 25% (7) of the referral centre health professionals felt the referrals from referring centre to hospital were appropriate.

Table I: Do you think referral was appropriate? n =273

Response	Count	Percent
Yes	206	75.5
No	30	11.0
Unsure	35	12.8
No response	2	0.73

The source of referral (Table II) in the patients opinion was mainly the primary care sisters, they accounted for 39% (107) of the referrals while medical officers referred 17% (48) of the patients 33%(91) by others and 7%(19) of patients do not know who referred them. Furthermore, 37% (92) of patients reported they were referred mainly for specific treatment, while 30% (83) were referred to obtain diagnosis and 16% (45) were referred to obtain detailed information on their illness. The remaining 18% (53) were referred for other reasons.

Table II: Who made the referral? n = 273

Category	**Count**	**Percent**
Consultant	8	2.9
Medical officer	48	17.6
Primary care sister	107	39..1
Others	91	33.3
Unknown	19	7.0

Furthermore, 19% (52) of referred patient had transportation provided to go to the hospital. 41% (111) reported the referral centre was informed before they were transferred. Majority of the referred patients 89% (241) were satisfied with the referral and 89% (241) of them agreed that their referral to hospital was necessary. However, majority of the patients were happy with the level of service received at the referral centre. 77% (210) reported that the staff at the referral centre were friendly and 84% (230) were happy with the explanation given for their illness. However, a source of concern is that in most of the referred patients 58% (215), there was no formal response back to primary care.

REFERRING CENTRE RESULTS

Almost all the participants interviewed in the referring centre were females (18) and one male. Sixteen were nurses and 3 were medical practitioners. Eighteen respondents felt that their referrals to hospital was appropriate and one participant was unsure about this.

Consistent with patients' results, most respondents 52 % (10) usually refer patients for specific treatment, 16% (3) refer to obtain diagnosis on patient illness, 26% (5) to exclude serious illness and one respondent refers to obtain diagnosis . However, inconsistent with results from patients' data, 52 % (10) felt referrals were mainly by medical officers as against 47 % (9) that felt referrals were made by primary care sisters.

Transportation was the major problem encountered when referring patients 68 % (13) while 32% (6) felt it was communication problems. In addition, 73 % (14) were of the opinion that transportation was inadequate and 89 % (17) reported the response rate of transport was unsatisfactory. Table III below.

Table III: Is the response rate of transport satisfactory? n = 19

Response	Count	Percent
Yes	1	5.3
No	17	87.4
Unsure	1	5.3

Ninety-five percent (18) of respondents from the referring centre claimed they usually inform and discuss with the referral centre before transfer of patients and 84 % (16) of participants in the referring centre do not feel reluctant to discuss patients.

Table IV of referring centre data shows that 58 % (11) of referring centre participants were happy with the referral system between the referring centre and the referral centre. In addition,

47 % (9) were not sure if the paramedics in the area were well trained. Perhaps, this could be attributed to the fact that the clinic hardly makes use of the paramedics.

Table IV: Are you happy with referral system? n = 19

Response	Count	Percent
Yes	11	57.9
No	6	31.6
Unsure	2	10.5

REFERRAL CENTRE RESULTS

Two nurses, 21 medical doctors and 5 allied workers were interviewed. A substantial percentage, 61 % (17) of those interviewed felt referrals from referring centre were inappropriate. 46% (13) of the respondents were of the opinion that referrals to the centre were mainly for specific treatment, 21% (6) felt it was mainly to obtain diagnosis and 10% (3) felt patients were often referred to get more information on the illness, Table V below. .

Table V: Main indication for referral from the perspective of referral centre? n =28

Indications for referral	Count	Percent
Obtain information about patient illness	3	10.71
To obtain diagnosis	6	21.43
To exclude serious illness	1	3.57
To obtain information on treatment	3	10.71
For specific treatment	13	46.43
Protection against uncertainty	2	7.14

The referral centre data shows most participants were of the opinion that the main source of referral from the referring centre were the primary care sisters, 57% (16) while 32% (9) reported they received most referrals from medical doctors. This variance could be attributed to the fact that the participants were interviewed from different departments.

A total of 61 % (17) of the participants reported that the referring centre does not inform them prior to referrals. A further 67 % (19) were of the opinion that patients referred were not usually discussed. However 82 % (23) of referral centre participants reported they were not reluctant to discuss referrals. Furthermore, in the referral centre data, 54 % (15) reported not giving feedback to referrals and only 32 % (9) felt this was practical. Most participants in this group were concerned about the adequacy of information provided in the referral letters with 78 % (22) reporting there was often not adequate information on the referral letters. However, half of the respondents agreed that they did not have clear referral guidelines.

Comparisons of results of various groups

Overall results from the 3 groups of participants relating to appropriateness of referrals shows referring health professionals were very positive of the appropriateness of their referrals to hospital 95 % (18), which is consistent with the response of the patients, 75 % (231). However, participants from the referral centre felt only about one quarter of referrals that they attend to are appropriate. $p < 0.01$.

Further comparisons was made on the main indication for referral, majority of respondents in the 3 different groups were of the opinion that patients were referred mainly for specific treatment.

In comparing the results from the referring centre data with the referral centre, 95 % (18) participants from referring centre reported they usually inform the receiving health professional before transferring patients. However, only 35 % (10) participants in the referral centre were of the same opinion. $p<0.01$.. Furthermore 56 % (15) of respondents from the referral centre reported not giving a formal response to referrals. Though most referring health professionals 95% (18) value responses to their referrals, a significant number 47 % (13), never get a reply to

their referrals. A large number of the receiving health professionals 43 % (12) felt it was not practical to respond to referrals. Most health professionals on both sides felt patients should be discussed before referral are made, 63 % (18) of referring health professionals and 96 % (28) of receiving health professionals respectively.

DISCUSSION

This study describes the experiences of patients, receiving health professionals and referring health professionals with referrals of patients between primary care setting to secondary and tertiary setting. . Patients and referring health professionals had positive experiences with referrals to higher level of health care. In contrast, the receiving health professionals were negative about referrals from primary care which is a source of concern.

Though most studies investigate the appropriateness of referrals to hospitals, few studies look into the experiences of referring health professionals and actually compared this with that of patients and receiving health professionals. Caution should be taken in interpreting results of this study as it is solely based on public health facilities experience. This system is obviously different from that of private health facilities, which might yield different results if researched.

Referral has considerable implications for patients, health care system and health care costs and there is considerable evidence that referral processes can be improved. [6] In a study in United Kingdom, it was reported that involvement of the general practitioners as a gatekeeper to further services has helped to keep health care cost down. [20] This view is supported by various other studies. The gate keeping role of general practitioners improves efficiency of the health care system, generally reducing cost and as a rule; patients are required to have a referral from their general practitioners to be able to utilize the services of a secondary health.

For the health system to function properly there has to be effective cooperation between the primary care and referral centres. Akande in Nigeria reported that about 93% of patients seen in a tertiary centre in Nigeria presented without a referral from primary care. This has led to overcrowding of tertiary health facilities and a waste of highly skilled manpower and equipments. [21].

Patient experiences

This study shows most patients were satisfied with referral to higher level and they felt referral was necessary. In a study by Rosemann et al, 83% of patients were satisfied with their referral to hospital[22]. Bowling reported 95% of patients describing their referral as necessary and 89% thought it was worthwhile to be referred. [20] Some studies reported the referral rate by primary care health professionals as not correlating with the appropriateness of referral. All the above findings contradicts the perception of the receiving health professionals in this research that felt majority of referrals to their centre were inappropriate.

In the private setting such as in United States, attempts to reduce the number of referral to specialists by making general practitioner the gatekeeper resulted in differing opinions from the specialists. This depended on the setting in which the specialist worked and by financial interest which may be threatened by referral restrictions. [23]

A study in Durban, South Africa, reports majority of patients seen in higher centres could have been managed effectively at primary care but results show that patients do present themselves to hospital without being referred. Reasons for this included proximity of hospital to patients home, and their belief that hospitals offer better care. [12] Most primary care facilities are perceived to be understaffed with poor infrastructure, and inadequate ambulance services. . For patients to be encouraged to be referred from primary care rather than present themselves in the hospitals, transportation and standard of care in primary care facilities needs to be improved. This may lead to reduced cost of health services and better health outcomes. More resources need to be allocated to the primary care sector.

Referring health professional experiences

A lot of challenges are faced by primary care health professionals in referring patients to a higher level of care. Within the health system, there may be no clear guidelines for the referral of patients between hospital and clinic. [12] This varies across countries. A study in United Kingdom shows 64% of specialists have written referring guidelines for general practitioners for complex cases. Though only 10% and 15% reported community-based follow up schemes and

outreach clinics respectively. In this study, majority (50%) of referral centre health professional agreed they do not have a clear referral protocol to the centre. The main indication for referral in this study is for specific treatment (53%). [20]

The communication level between the primary care providers and the referral centre has important implication on the health system. Few studies have actually formally considered this important component of referral. Most referring health professionals in this study were positive with the level of communication with the referral centre. This contradicts the findings of Doleman F, which reported that most general practitioners are wary of their specialist colleagues. They claim the specialists disagree with referrals and considered most referrals as unnecessary, and even refusing to read referral letters. In addition they maintain hospital specialists are only interested in patients' problems. Even when problems have been identified, the referring general practitioner is not informed and the patient is not returned back to primary care. [10] On the other hand some specialists feel the primary care personnel should have done more investigation and initiated more treatments before referring patient. [20]

Another issue of concern is feedback from referrals centre. It is disturbing to know that 54% of referral health professionals in this study admitted to not responding formally to referrals. This is correlated by other studies and the reason pertained to work situation at referral centre. Other factors are hospital doctors' perceptions that as to their role in the health care system and their perception that it is futile to respond to referrals. [24] Feedback to referral remains very important for continuity of care as this will may to reduction in health costs.

Referral centre health professional experiences

In this study, most referral centre health professionals were cautious of the referrals from referring centre. They felt the information provided in their referral letter was often not adequate. In addition, they were of the opinion that the referring health professional could have done more investigations and assessments. In the public setting, this leads to an increase workload for the referral and often a waste of resources. However, this contradicts the opinion of patients and the referring health professional. Most studies actually found that most inappropriate referrals were from patients that did not go through the referral process. A study in Durban, South Africa

attributed increase in number of patients visiting hospitals to factors such as urbanization and HIV/AIDS. [25] The views of the referral centre health professions needs to be taken into account as the quality of referrals needs to be improved upon.

CONCLUSION

Primary care health professional and patients in this study view the referrals to higher levels of care as appropriate. However, the referral centres health professionals were of the opinion that most referrals were inappropriate. The opinion of the referral centre may be attributed to their negative attitudes towards referrals. The referral centres needs to provide more support to primary care for a more efficient referral system. They also need to improve on the continuity of care by providing feedback to referrals. On the other hand, the primary health care needs to be strengthened in terms of resource allocation, transport and communication in order to gain more confidence from patients and referral centres.

LIMITATIONS

- Unavailability of data from Motherwell Community Health Centre on the number of patients referred from them to Dora Nginza Hospital between January 2009 to December 2009.
- The finding of the study was solely based on public health system experience.
- The sample size for the study was small especially from the referring centre health professionals.

RECOMMENDATIONS

- Improvement of transportation between different referring and referral centres.
- Enforcement of levies in hospital for patients presenting without referral letters. This is already practiced in some centres in Eastern Cape. The German study highlighted in the discussion section is an evidence of the success of this intervention.
- Outreach specialist clinics by hospital to primary care facilities.
- Clear referral guidelines drawn up by hospitals and distributed to the clinics.
- Regular meetings between stakeholders on both sides.
- Pro forma referral letter from the referring centre with a section for feedback and contact details for reply. In addition, this should include section on history, examination, investigations and treatment and what is required from the referral centre.
- Improvement of communication between primary care and hospitals. Speed dials of main referral centre departments can be allocated to primary care telephones.
- Patient education with clear catchment area allocation and information on referrals available on community news bulletin and health facilities.

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- Dr D O Okere, Head of Department, Family Medicine and Primary care, Dora Nginza Hospital.
- Mr Z Merile, Deputy director; Epidemiology research and surveillance management. Eastern Cape Department of Health.
- Research assistants:Lumka Mabija, Vuvu Ndohlo, Zanele Jonga, Stanley Abizu, Pelisa and Asanda .
- Friends and family; Atinuke Odufuwa, Kanya Jakavula, and Muyiwa Odufuwa.

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APPENDICES

APPENDIX 1

PATIENT INFORMED CONSENT

Introduction:

I am Oluwatoyin Aliu Odufuwa, a postgraduate student of University of Stellenbosch. I am conducting a study amongst patients and health professionals towards the award of M Med(family medicine) at department of family medicine and primary care.

Title of study

The appropriateness of patient referrals between different levels of health care in the Port Elizabeth Metropole with particular reference to Motherwell Community Health Centre and Dora Nginza Hospital.

You have been invited to participate in the study.

Before you start, please read the following instructions so that you can understand the purpose of the study, the procedures, benefits, risks, discomfort, precautions as well as the alternatives available to you and your right to withdraw from the study at any point in time. These instructions serve as a guide for you to decide if you will participate.
For further enquiries, please contact me at cell: 0721167796 email:drt2000a@yahoo.com

1. You should not agree to participate in the study if not satisfied with the procedures.
2. Please complete questionnaire truthfully.
3. Completion of questionnaire will be regarded as consent to participate.
4. The overall aim of the project is to suggest ways of improving the patient referral between different levels of health care by identifying the major problems associated with poor patient referrals and making recommendations on how this can be improved upon.
5. The study will involve approximately 400 participants (Patients and health professionals). The questionnaire will take approximately 25 minutes to complete.
6. There are no risks or benefit to you. Information will be stored by a third party and given to me as coded data and therefore there is no risk of leading participant to their responses.

7. Your participation in this study is entirely voluntary and you can decline to participate, or stop at any time, without stating any reason.
8. You will not be paid to participate in this survey.
9. This research protocol has been submitted to the University of Stellenbosch, Department Interdisciplinary Sciences and written application has been granted by that department. If you require information regarding your right as a participant, or complaints regarding this study, you may contact Dr Michael Pather, Senior lecturer, Division Family Medicine and Primary care, Department Interdisciplinary Sciences, University of Stellenbosch. Email:mpather@sun.ac.za

Declaration by participant.

By signing below, I ……..agree to take part in the research study entitled "To study appropriateness of patient referrals between various levels of health care in the Port Elizabeth Metropole with particular reference to Motherwell Community Health Centre and Dora Nginza Hospital.

I declare that;

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurized to take part.
- I may chose to leave the study at any time and will not be penalized or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (place)……on (date)……..2010.

…….. …….....

Signature of participant Signature of witness

Declaration by investigator

I *(name)* ……..…… declare that:

- I explained the information in this document to ……..
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter. (*If an interpreter is used then the interpreter must sign the declaration below.*

Signed at (*place*) .....….....…….. on (*date*) ……...…….. 2010.

..... **.....**

Signature of investigator **Signature of witness**

Declaration by interpreter

I *(name)* ……..…… declare that:

- I assisted the investigator (*name*) ……. to explain the information in this document to (*name of participant*) ……..…….. using the language medium of Afrikaans/Xhosa.
- We encouraged him/her to ask questions and took adequate time to answer them.
- I conveyed a factually correct version of what was related to me.
- I am satisfied that the participant fully understands the content of this informed consent document and has had all his/her question satisfactorily answered.

Signed at (*place*) .....….....…….. on (*date*) ……...……..

....

Signature of interpreter **Signature of witness**

REFERRING CENTRE INFORMED CONSENT

Introduction:

I am Oluwatoyin Aliu Odufuwa, a postgraduate student of University of Stellenbosch. I am conducting a study amongst patients and health professionals towards the award of M Med (family medicine) at department of family medicine and primary care.

Title of study

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Before you start, please read the following instructions so that you can understand the purpose of the study, the procedures, benefits, risks, discomfort, precautions as well as alternatives available to you and your right to withdraw from the study at any point in time. The instructions serve as a guide for you to decide if you will participate.

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7. Your participation in this study is entirely voluntary and you can decline to participate, or stop at any time, without stating any reason.
8. You will not be paid to participate in this survey.
9. This research protocol has been submitted to the University of Stellenbosch, Department Interdisciplinary Sciences and written application has been granted by that department. If

you require information regarding your right as a participant, or complaints regarding this study, you may contact Dr Michael Pather Senior lecturer, Division Family Medicine and Primary care, Department Interdisciplinary Sciences, University of Stellenbosch. Email:mpather@sun.ac.za

Declaration by participant.

By signing below, I ……..agree to take part in the research study entitled "To study appropriateness of patient referrals between various levels of health care in the Port Elizabeth Metropol with particular reference to Motherwell Community Health Centre and Dora Nginza Hospital.

I declare that;

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurized to take part.
- I may chose to leave the study at any time and will not be penalized or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the study doctor or researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (place)……on
(date)……..2010.

…….. …….....

Signature of participant Signature of witness

Declaration by investigator

I *(name)* ……..…… declare that:

- I explained the information in this document to ……..
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter. (*If an interpreter is used then the interpreter must sign the declaration below.*

Signed at (*place*) .....….....…….. On (*date*) ……...…….. 2010.

..... **.....**
Signature of investigator **Signature of witness**

Declaration by interpreter

I *(name)* ……..…… declare that:

- I assisted the investigator (*name*) ……. to explain the information in this document to (*name of participant*) ……..…….. using the language medium of Afrikaans/Xhosa.
- We encouraged him/her to ask questions and took adequate time to answer them.
- I conveyed a factually correct version of what was related to me.
- I am satisfied that the participant fully understands the content of this informed consent document and has had all his/her question satisfactorily answered.

Signed at (*place*) .....….....…….. On (*date*) ……...……..

..... **.....**

Signature of interpreter **Signature of witness**

REFERRAL CENTRE INFORMED CONSENT

Introduction:

I am Dr Oluwatoyin Aliu Odufuwa, a postgraduate student of University of Stellenbosch. I am conducting a study amongst patients and health professionals towards the award of M Med (family medicine) at department of family medicine and primary care.

Title of study

The appropriateness of patient referrals between different levels of health care in the Port Elizabeth Metropole with particular reference to Motherwell Community Health Centre and Dora Nginza Hospital.

You have been invited to participate in the study.

Before you start, please read the following instructions so that you can understand the purpose of the study, the procedures, benefits, risks, discomfort, precautions as well as alternatives available to you and your right to withdraw from the study at any point in time.

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9. This research protocol has been submitted to the University of Stellenbosch, Department Interdisciplinary Sciences and written application has been granted by that department .If you require information regarding your right as a participant, or complaints regarding this study, you may contact Dr Michael Pather, Senior lecturer, Division Family Medicine and Primary care, Department Interdisciplinary Sciences, University of Stellenbosch. Email: mpather@sun.ac.za

Declaration by participant.

By signing below, I ……..agree to take part in the research study entitled "To study appropriateness of patient referrals between various levels of health care in the Port Elizabeth Metropole with particular reference to Motherwell Community Health Centre and Dora Nginza Hospital.

I declare that;

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurized to take part.
- I may chose to leave the study at any time and will not be penalized or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the study doctor or researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (place)……on (date)……..2010.

…….. …….....

Signature of participant Signature of witness

Declaration by investigator

I *(name)* ……..…… declare that:

- I explained the information in this document to ……..
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter. (*If an interpreter is used then the interpreter must sign the declaration below.*

Signed at (*place*) .....…..…….. On (*date*) ……...…….. 2010.

....

Signature of investigator **Signature of witness**

Declaration by interpreter

I *(name)* ……..…… declare that:

- I assisted the investigator (*name*) ……. to explain the information in this document to (*name of participant*) ……..…….. using the language medium of Afrikaans/Xhosa.
- We encouraged him/her to ask questions and took adequate time to answer them.
- I conveyed a factually correct version of what was related to me.
- I am satisfied that the participant fully understands the content of this informed consent document and has had all his/her question satisfactorily answered.

Signed at (*place*) .....…..…….. On (*date*) ……...……..

....

Signature of interpreter **Signature of witness**

APPENDIX 2

QUESTIONNAIRE: (PATIENTS)

Demographic variables

1. Age :
2. Gender : Male =1 , Female =2
3. Marital status: Single =1 , Married =2 , Divorced =3 , Widowed =4
4. Educational level: Below matriculation=1 , Matriculation=2 , Above Matriculation =3
5. Occupation : Employed =E , Unemployed =U

6. Do you think the referral was appropriate?

a. Yes =1
b. No =2
c. Unsure =3

7. What was the reason for referral? Tick which is/are applicable

a. To obtain detailed information on my illness=1
b. To obtain diagnosis=2
c. To exclude serious illness=3
d. To get information on treatment option=4
e. For specific treatment.=5
f. Patient requested referral =6
g. Others =7

8. Who made the referral?

a. Consultant =1
b. Medical officer=2
c. Primary Care Sister=3
d. Unknown=4
e. Others =5

9. Was referral centre well informed by the referring centre?

a. Yes =1
b. No=2
c. Unsure=3

10. Was transport provided to the referral centre?

a. Yes =1
b. No =2

c. Unsure =3

11. **Were medical staffs at the referral centre friendly**?
    a. Yes =1
    b. No=2
    c. Unsure =3

12. Was there a reply to the referring centre from the referral centre?
    a. Yes =1
    b. No =2
    c. Unsure =3

13. Did you receive treatments not mentioned from the referring centre?
    a. Yes=1
    b. No =2
    c. Unsure =3

14. Was the explanation of illness by referral centre adequate?
    a. Yes =1
    b. No=2
    c. Unsure =3

15. Were you satisfied with the referral?
    a. Yes=1
    b. No =2
    c. Unsure =3

16. Do you feel referral was necessary?
    a. Yes=1
    b. No=2
    c. Unsure=3

QUESTIONNAIRE: (REFERRING HEALTH PROFESSIONAL)

Demographic variables

1. **Age :**
2. **Gender :** Male=M, Female=F
3. **Marital status :** Single=1, Married=2, Divorced=3, Widowed=4
4. **Occupation :** Nurse=E , Medical Doctors=U , Ambulance=3 , Allied=4

5. **Do you think the referral was appropriate?**
    a. Yes =1
    b. No =2
    c. Unsure =3

6. **Which are the main indications for referral to the referral centre?**
    a. To obtain detailed information on the patient's illness=1
    b. To obtain diagnosis=2
    c. To exclude serious illness=3
    d. To get information on treatment option=4
    e. For specific treatment.=5
    f. To protect me in cases of uncertainty=6
    g. Patient requested referral=7
    h. Others =8

7. **Who usually makes the referral?**
    a. Consultant=1
    b. Medical officer=2
    c. Primary Care Sister=3
    d. Unknown=4
    e. Others =5

8. **What are the major problems you usually encounter in the process of referring patients to the referral centre?**
    a. Communication=1
    b. Transport =2
    c. Other=3

9. Are referral centre well informed of the transfer of patients?

a. Yes =1
b. No=2
c. Unsure=3

10. Do you always discuss referral of patients with the doctors on the receiving end at the referral centre?

a. Yes =1
b. No =2
c. Unsure =3

11. Do you feel reluctant to discuss patients with the doctors at the referral centre?

a. Yes =1
b. No=2
c. Unsure=3

12. Do you not see the need to first discuss referrals with doctors at the referral centre?

a. Yes =1
b. No=2
c. Unsure=3

13. Do you feel inferior when seeking to transfer a patient?

a. Yes =1
b. No=2
c. Unsure=3

14. Should patients be accepted without the need for discussion?

a. Yes =1
b. No=2
c. Unsure=3

15. Are receiving doctors at the referral centre are unfriendly?

a. Yes=1
b. No=2
c. Unsure=3

16. Are receiving doctors at the referral centre are supportive?

a. Yes=1
b. No=2
c. Unsure=3

17. Do you not receive a formal response to your referral letter?

a. Yes =1
b. No =2
c. Unsure =3

18. Do you value responses to my referral letters to referral centres?

a. Yes =1
b. No =2
c. Unsure =3

19. In general, are you happy with the referral system between us and the referral centre?

a. Yes =1
b. No =2
c. Unsure =3

20. Are paramedics in your area well trained?

a. Yes =1
b. No =2
c. Unsure =3

21. Is the response rate of transport to referral centres is in general satisfactory?

a. Yes =1
b. No =2
c. Unsure =3

22. Is transport between my hospital and the referral centre is adequate?

a. Yes =1
b. No =2
c. Unsure =3

QUESTIONNAIRE: (RECEIVING HEALTH PROFESSIONAL)

Demographic variables

1. **Age :**
2. **Gender :** Male=M, Female=F
3. **Marital status :** Single=1, Married=2, Divorced=3, Widowed=4
4. **Occupation :** Nurse=E, Medical Doctor=U, Ambulance=3, Allied=4

5. **Are referrals from referral centres mostly appropriate?**
    a. Yes =1
    b. No =2
    c. Unsure =3

6. **Which is the main indication for referral to your referral centre?**
    a. To obtain detailed information on the patient's illness =1
    b. To obtain diagnosis=2
    c. To exclude serious illness=3
    d. To get information on treatment option=4
    e. For specific treatment.=5
    f. Patient requested referral=6
    g. Others =7

7. **Who usually refers patients?**
    a. Consultant=1
    b. Medical officer=2
    c. Primary Care Sister=3
    d. Unknown=4
    e. Others =5

8. **Is your referral centre always well informed of the transfer of patients to your hospital?**
    a. Yes =1
    b. No =2
    c. Unsure =3

9. **Are patients are always discussed with referring doctors before transfer to the referral centre occurs?**
    a. Yes =1
    b. No =2
    c. Unsure =3

10. **Do you feel patients should always be discussed with doctors at the referral centre before transfer occurs?**
    a. Yes =1
    b. No =2
    c. Unsure =3

11. **Do you feel reluctant to discuss patients with the health professionals on the referring side?**
    a. Yes =1
    b. No =2
    c. Unsure =3

12. **Do you feel the no need to first discuss referrals with doctors at the referral centre?**
    a. Yes =1
    b. No =2
    c. Unsure =3

13. **Do you feel referral centres should always accept referrals without question?**
    a. Yes =1
    b. No =2
    c. Unsure =3

14. **Do you always respond to the referring doctors with formal response to their referral letter?**
    a. Yes =1
    b. No =2
    c. Unsure =3

15. **Do you feel it is not practical to respond to referral letters from referring centres?**
    a. Yes =1

b. No =2
c. Unsure =3

16. Are there often not adequate information presented in the referral letter?

a. Yes =1
b. No =2
c. Unsure =3

17. Do you have clear indications for referral to our referral centre?

a. Yes =1
b. No =2
c. Unsure =3

APPENDIX 3

11 June 2010

MAILED

Dr OA Odufuwa
Department of Family Medicine and Primary Care
3rd Floor, Fisan building
Stellenbosch University
Tygerberg campus
7505

Dear Dr Odufuwa

"To study appropriateness of patients referral between various level of health care in the Port Elizabeth metropol with particular reference to motherwell comprehensive health centre and Dora Nginza hospital."

ETHICS REFERENCE NO: N10/02/038

RE : APPROVAL WITH STIPULATION

It is a pleasure to inform you that a review panel of the Health Research Ethics Committee has approved the above-mentioned project on 9 June 2010, including the ethical aspects involved, for a period of one year from this date

The panel stipulated that the statement on p.21 "Those that did not participate or did not complete the research will be managed properly, coded and confidentiality maintained", be clarifed.

This project is therefore now registered and you can proceed with the work. Please quote the above-mentioned project number in ALL future correspondence. You may start with the project. Notwithstanding this approval, the Committee can request that work on this project be halted temporarily in anticipation of more information that they might deem necessary.

Please note a template of the progress report is obtainable on www.sun.ac.za/rds and should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly and subjected to an external audit.

Translations of the consent document in the languages applicable to the study participants should be submitted.

Federal Wide Assurance Number: 00001372
Institutional Review Board (IRB) Number: IRB0005239

The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Please note that for research at primary or secondary healthcare facility permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Hélène Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be

Verbind tot Optimale Gesondheid · Committed to Optimal Health
Afdeling Navorsingsontwikkeling en -steun · Division of Research Development and Support
Posbus/PO Box 19063 · Tygerberg 7505 · Suid-Afrika/South Africa
Tel: +27 21 938 9675 · Faks/Fax: +27 21 931 3352

Division of Family Medicine and Primary Care,
Department interdisciplinary sciences,
Faculty of health sciences,
University of Stellenbosch,
01-02-2010.

To whom it may concern,

Dear sir/madam,

RE: PERMISSION TO CONDUCT MEDICAL RESEARCH IN YOUR ESTABLISHMENT:

I hereby apply for permission to conduct medical research in the establishment. This is for the purpose of fulfillment of the degree of MMED (FAMILY MEDICINE) at the University of Stellenbosch.

The research question is: **"How appropriate is patient referral between various levels of health care in the Port Elizabeth Metropole with particular reference to Motherwell comprehensive health centre and Dora Nginza hospital."**

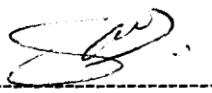
The research aims to improve ways of patient referral between different levels of care by identifying the major causes of poor patient referral and make recommendations on how this can be improved upon. I also aim to assist in drafting a formal referral protocol for the Metropole.

The proposal has been formally approved by the research ethics committee of the University of Stellenbosch and a copy is included for your perusal.

I will be grateful if formal permission is granted.

Kind regards and best wishes

Yours sincerely



Dr Oluwatoyin Aliu Odufuwa

Cell number: 0721167796

Email number: drt2000a@yahoo.com

Eastern Cape Department of Health

Enquiries	Zonwabele Merile	Tel No:	040 608 0830
Date e-mail address	24th June 2010 zonwabele merile@impilo ecprov gov.za	Fax No:	043 642 1409

Dear Dr OA Odufuwa

Re: Study the appropriateness of patients referral between various levels of health care in the Port Elizabeth metropole with particular reference to Motherwell health center and Dora Nginza

The Department of Health would like to inform you that your application for conducting a research on the abovementioned topic has been approved based on the following conditions:

1. During your study, you will follow the submitted protocol with ethical approval and can only deviate from it after having a written approval from the Department of Health.
2. You are advised to ensure, observe and respect the rights and culture of your research participants and maintain confidentiality of their identities and shall remove or not collect any information which can be used to link the participants.
3. The Department of Health expects you to provide a progress on your study every 3 months (from date you received this letter) in writing.
4. At the end of your study, you will be expected to send a full written report with your findings and implementable recommendations to the Epidemiological Research & Surveillance Management. You may be invited to the department to come and present your research findings with your implementable recommendations.
5. Your results on the Eastern Cape will not be presented anywhere unless you have shared them with the Department of Health as indicated above.

Your compliance in this regard will be highly appreciated.

DEPUTY DIRECTOR: EPIDEMIOLOGICAL RESEARCH & SURVEILLANCE MANAGEMENT

Province of the
EASTERN CAPE
HEALTH

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15 June 2010

Dr. O A Odufuwa
c/o Family Medicine Department
Dora Nginza Hospital

Dear Dr. Odufuwa

RE: PERMISSION TO CONDUCT RESEARCH

This letter serves to confirm that permission has been granted for you to conduct the requested research.

Please ensure that all relevant ethical norms and standards are complied with while conducting your research and provide this office with a copy of the completed research.

Thank you and good luck.

Sincerely,

MEDICAL SUPERINTENDENT
MEDIESE
DORA NGINZA HOSPITAL / HOSPITAAL
PRIVATE BAG 11951
PRIVAATSAK
ALGOA PARK 6005

Dr. A Vehbi
SENIOR MEDICAL SUPERINTENDENT

Province of the
EASTERN CAPE
HEALTH

Office of the Nelson Mandela Bay Health District Manager
Private Bag X26000 • Greenacres • PORT ELIZABETH • 6057 • REPUBLIC OF SOUTH AFRICA

Enquiries : LTV Oliver
Telephone : 041-391-8100
Facsimile : 041-391-8133
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Our Reference :
Our Reference :
Date : 28 June 2010

Dr. O.A. Odufuwa
C/o Family Medicine Department
Dora Nginza Hospital
PORT ELIZABETH

Dear Dr. Odufuwa

REQUEST FOR PERMISSION TO CONDUCT RESEARCH : PATIENT REFERRALS BETWEEN VARIOUS LEVELS OF HEALTH CARE IN THE PORT ELIZABETH METROPOLE

In response to your application for permission to conduct the above research with particular reference to Motherwell CHC the Nelson Mandela Bay Health District, permission is herby granted with the following proviso:

Health service delivery should not be disrupted under any circumstances.

Proof of your research should be obtained from an accredited research institution prior to your starting in our facilities.

The Nelson Mandela Bay Health District, as the research site, will expect a copy of the final research report when the study is completed. If the duration of the research period is required to be extended, the District Office (District Manager, Mr. T. Oliver), should be informed accordingly.

This Office would like to wish you well in your research study.

Yours faithfully

DISTRICT MANAGER
NELSON MANDELA BAY HEALTH DISTRICT
United in achieving quality health care for all

24 hour call centre: 0800 0323 64
Website: www.ecdoh.gov.za

Ikamva eliqaqambileyo!