A SURVEY OF MEDICAL STUDENTS PERCEPTION OF PHYSIOTHERAPY IN THE UNIVERSITY OF NIGERIA, ENUGU CAMPUS.

BY

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DEDICATION

This work is dedicated to all caregivers in the hospital and elsewhere.
ACKNOWLEDGEMENT

My utmost gratitude goes to the Almighty God whose grace, love, blessings has brought me this far.

I owe special thanks to my colleagues, Udorji Gideon, Asagba Efe and Nkechi Nwagalaku for their time, help and contribution to this work.

My sincere appreciation goes to my lecturer, Dr. S. C. Ibeneme for this challenging work and also to my head of department, Dr. G. C. Okoye and all my lecturers and staff of the department of medical rehabilitation.

I thank my cousin, Mr Emmanuel Orjako, my uncle Mr. Chidozie Ezejiofor and big sister Mrs Uche Ntumobe for their help towards the completion of this work.

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May the Almighty Father through his beloved son Jesus Christ and the Holy Spirit bless you all. Amen.
ABSTRACT

There are many parts to care giving and many professions make up the medical team of which physiotherapy is one.

In this study, an investigation was carried out into the perception of physiotherapy by medical students of the University of Nigeria, Enugu Campus. Their answers from a questionnaire were evaluated and the result showed that further education is needed for the student.
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CHAPTER ONE

1.0 BACKGROUND OF THE STUDY

Perception according to Dictionary.com (V.I.O^1) (C) Random House, inc. 2006 is the act or faculty of apprehending by means of the senses of the mind; cognition; understanding. In psychology, it is the process by which information about the world which is received by the perception include hallucinations, illusions and agnosia. This concept is common to philosophy and psychology with the core meaning being immediate to awareness. The traditional approach within Western philosophy examines perception as a means for knowing. Learning and acculturation may be believed perceptions, the content of which seems patently obvious (Hamlyn, 1961)

In essence, what we have given ourselves to study creates an innate feeling of familiarity and significance when mentioned and likewise our
relationship to circumstances, which are defined in the content of sequence and routine. Thus, nature of the environment, attitude to work, types of school and occupation including physiotherapy have some meaning based on how familiar and experienced we are with them. This meaning, which it holds, evokes or response based on our perception which informs the construct of our mind set.

In essence, familiarity with physiotherapy as a course, as a field of study or field practice will evoke a response, which may be rabrdly enthusiastic or fully repelling based on our perception of it. This is true in relationship between the physiotherapist and other practitioners as it is also true for students of these various professions. The difference lies in that the students are in a stage of actually learning the meaning of each profession as to be engaged with them. A previous ill contrived meaning can thus be remedical and vice versa. Thus, it is important that physiotherapy as a profession should be well
understood by all students of medicine and allied field since a wrong perception of it could precipitate who might engage their services.

Meanwhile, physiotherapy also known as physical medicine is a medical specially established by the royal society of medicine in 1931. It is a branch of medicine that deals with the diagnosis and treatment of physical disabilities. Specialists in physical medicine and rehabilitation use physical means such as heat, cold, exercise and radiation to treat patients. It consists of the evaluation and treatment of patient’s disabled by disease, accident, stress and trauma. The physical means are used to alleviate pain and disorders of mobility. The objective of physiotherapy is return of the patient to a pain-free, productive life whether the patient is a crippled child, an injured workman or athlete, a victim of stroke or someone otherwise disabled by pain. Other objectives are the relief of pain, improvement or maintenance of function such as strength or mobility,
training in the most effective methods of performing activities and testing of functions in various areas.

Treatment modalities in physiotherapy include exercise, cold, light, electricity, massage and water. All physical therapy procedures influence physiological status and are used for restorative or therapeutic purposes. In addition to the aforementioned, other measures include the use of ultrasonic devices for relief of muscle spasm and pain and low voltage generators that can produce contractions in very weak muscles. Certain medications can also be introduced through the skin by means of low-voltage electrical apparatus (White, 1967)

1.1 STATEMENT OF PROBLEM

1. There is doubt whether medical students actually know about physiotherapy.

2. There has not been any documented works on the perception/awareness of medical students about physiotherapy in this locality.
1.2 SIGNIFICANCE OF STUDY

1. It will help the relevant authorities to know the level of knowledge and perception of medical students concerning physiotherapy.

2. It will help the authorities know if the medical students are aware of the importance of physiotherapy to them as future members of a medical team.

3. It will help discover how the knowledge of physiotherapy can be disseminated among medical students.

1.3 RESEARCH QUESTIONS

1. Are medical students aware of physiotherapy and their importance in the medical team?

2. Is there need to further educate undergraduate medical students concerning physiotherapy?
1.4 AIMS AND OBJECTIVES

This is to

1. Determine the level of medical students knowledge, awareness and perception about physiotherapy

2. Determine need for further education about physiotherapy within the undergraduate medical course.

1.5 SCOPE OF STUDY

This study includes medical students in sixth year class of the university of Nigeria Enugu campus.
CHAPTER TWO

2.0 INTRODUCTION

Physiotherapy goes by different names to different people. To some, it is physical therapy while to others it is physical medicine but in generally accepted fact is that it uses physical agents to treat medical conditions non-invasively. Someone rightly said that physiotherapy mends the errors of medicine but the discipline is much more than that as will be seen subsequently.

2.1 DEFINITION OF CONCEPTS

Perception is defined by the Oxford Concise Medical Dictionary as the process by which information about the world received by the senses is analysed & made meaningful. Abnormalities include hallucination & illusions and agnosia.

Physiotherapy is the branch of medical sciences that deals with the non-invasive treatment of different conditions using physical agents like electricity, water, heat and light.
2.2 CONCEPTUAL FRAMEWORK:

- Possible negative perception of physiotherapy
  - Lack of awareness of physiotherapy
    - Decreased awareness of other medical professions
      - Society's undue value of medicine & surgery
        - Medicine & surgery
        - Physiotherapy

2.3 THEORETICAL CONCEPTS

There are different branches of the medical sciences but in Nigeria unfortunately, much emphasis is placed on Medicine and surgery at the expense of other branches of the profession including physiotherapy, thus there is much huppe and awareness of Medicine and Surgery while
physiotherapy and others are not as extensively known and valued as the other part. This decreased and or lack of awareness of physiotherapy in the society carries over to the universities where it is questionable if medical students (especially those of the department of Medicine and Surgery) perceive physiotherapy in a good light in view of the undue importance attached to their course.

2.4 REVIEW OF EMPIRICAL STUDIES

Physical therapy is a specialty focused on prevention, diagnosis and non-surgical treatment of disorders associated with disability. Therapists care for patients with musculoskeletal disorders, acute and chronic pain and in need of rehabilitation services. The specialty has been aptly called the "quality of life medical specialty" because its goal is to restore optimal function in all spheres of life including the medical, social, emotional and vocational dimensions. (Branddonm, R.L., 2001).
In the history of the world, there has always been physicians known as caregivers in the various cultures of the world; Chinese, Babylonian, Egyptian, Greek, Indian, e.t.c. In those days of little technology, most of the procedures were non invasive and a lot of physical agent were employed in such treatment. It is documented that spas were once centers of fashion, recreation leisure and treatment. Over the years, these practices have been refined incorporating a lot more physical agents (e.g. electricity) and becoming a lot more scientific than intuitive.

Around the middle of the 20th Century, holistic, comprehensive, team-oriented care for people with disabilities began to be recognized as an important social obligation (Delisa, J.A., Gans, B.M. (Eds) 1998). Thus began the interest in people with disabilities. In 1936, Dr. Frank Kinsen inaugurated the first residency – training program at the Mayo Clinic. After the Second World War when thousands of ‘disabled’ veterans returned, the field of
rehabilitative medicine expanded greatly (Honet, J.C., 1997).

Traditional medical science employs biomedical model of treatment while rehabilitation employs the biosychosocial model (Ozei, M.N., Payton, O.D., 2000). In the clinical setting, the person that is most important is the patient and physiotherapy has contributed enormously to his care. According to Rogers, C.R (1959), comprehensive rehabilitation has 5 subcomponents viz:

1. Unique, patient – centered plan formulated by the patient and rehabilitation team.
2. Goals derived and prioritized through an interdisciplinary process
3. Patient participation required to achieve the goal
4. Results in improvement in the patient’s personal potential
5. Outcomes demonstrate reduction in impairments, disabilities and handicaps.
Physiotherapy is extensively employed in the management and rehabilitation of acute and chronic respiratory infections, stroke resulting for example in paralysis of either one side of the body or one limb, varieties of painful conditions such as neck pains, back pains, low back pains, joint pains, muscle weaknesses or paralysis, traumatic injuries such as fractures, varieties of congenital deformities, paralytic virus or bacterial infections such as poliomyelitis, measles, tuberculosis, tetanus, cerebrospinal meningitis, e.t.c. Also, it is extensively employed in the management of various medical and surgical conditions as well as in sports injuries (Owocye, 1990).

COMPONENTS OF PHYSIOTHERAPY

The major component of physiotherapy include:

1. Diagnostic Physiotherapy
2. Preventive Physiotherapy
3. Therapeutic Physiotherapy
4. Curative Physiotherapy
5. Rehabilitative Physiotherapy (Owoeye, 1988)

There are several clinical specialties available, some of which include:

1. Paediatric physiotherapy
2. Physiotherapy in obstetrics & Gynaecology
3. Physiotherapy in surgical conditions
4. Physiotherapy in medical conditions
5. Physiotherapy in Neurology
6. Physiotherapy in the management of acute & chronic pains of musculoskeletal origin
7. Cardio – thoracic physiotherapy
8. Physiotherapy in the management of open wounds
9. Psychiatric physiotherapy
10. Genatric physiotherapy
11. Physiotherapy in sports injuries
12. Physiotherapy in Emergencies
13. Physiotherapy in physical fitness
14. Community physiotherapy

As can be seen, physiotherapy is a constituent of all the existing comprehensive health care systems i.e., the
health care delivery system in any hospital remains incomplete without the facilities in physiotherapy. In a hospital, virtually all the patients in attendance (in-patients and out-patients) require some forms of physiotherapeutic procedures. Today, virtually every living person can benefit from some procedures in physiotherapy. It is particularly essential for the maintenance of health and as age advances. Therefore, nowadays, the practice of physiotherapy has gone beyond the walls of the hospitals. (Owoeye, 1990).

**RESEARCH IN PHYSICAL THERAPY**

Research is the only means of building up to existing knowledge. Also, the only means of improving the effectiveness of the clinical procedures in the treatment of pathological conditions or medical rehabilitation or in keeping physically fit is through the application of research findings. In addition, the only means by which the treatment modalities or the monitoring or the assessment instrument can be expanded or increased is through research. Research plays a vital role in
maintaining the credibility of a profession among other professions in the academic and clinical communities. In physiotherapy, the major areas of focus include:

1. Neuromuscular re-education
2. Musculoskeletal re-education
3. Cardiovascular rehabilitation
4. Cardiorespiratory rehabilitation
5. Management of acute and chronic pains
6. Kinesiological and biochemical studies of the body segments in normal and pathological conditions.
7. Energy cost in ambulation
8. Wound healing

The methodology of many of these research studies is mainly clinical investigation which are either case reports or exploratory in design very few are experimental.

Other areas of current research activities in physical therapy include investigations into the effective physical therapeutic management including medical rehabilitation of some pathological conditions such as:
1. Neuromuscular diseases e.g.
   (a) Pseudo – Hypertrophic muscular Dystrophy
   (b) Guillain barre syndrome
   (c) Erb’s juvenile muscular dystrophy, etc

2. Osteomyelitis eg
   (a) Acute haematogenous osteomyelitis
   (b) Acute suppurative arthritis
   (c) Acute septic arthritis in infants, etc.

3. Tuberculous osteitis
   (a) Tuberculous osteitis
   (b) Tuberculous synovitis
   (c) Pott’s disease, etc

4. Orthopaedic diseases

5. Neurological conditions eg
   (a) Multiple sclerosis
   (b) Friedreich’s Ataxia
   (c) Anencephaly
   (d) Polyneuropathies, etc.
6. Congenital deformities eg
   (a) Torticollis
   (b) Sprengel's shoulder
   (c) Congenital dislocation of the hip
7. Acute and chronic respiratory diseases, etc. (Owoeye, 2000).

**Bioengineering**

**Exercise Therapy**

**Musculoskeletal and Neurological Conditions**

There is no end to the expected future trend of research studies in physical therapy. The trend is multidirectional in design and hence there is no way that every bit of the facets of the future trend of research studies in physiotherapy can be spelt out here.

It is also worthy of note that with graduate and postgraduate studies in physical therapy, there is an increased growth in the fields of theoretical, applied and clinical physical therapy.

The practice of physical therapy is on very sound scientific bases. There is a scientific rationale for every bit
of clinical practice in physical therapy that can be explained, discussed and subjected to evaluation. Volumes of books and books now exist in physical therapy. Also existing are numerous monographs, newsletters, official communication booklets, magazines and journals in physical therapy worldwide. There is now a body of knowledge in the arts and sciences of physical therapy with several fully fledged professors of physical therapy. Today, around the world there are physical therapy professors who are Deans of Faculties, Deputy Vice Chancellors and Vice – Chancellors of Universities (Owoeye, 2000).

Despite the above, statistics show that in Nigeria (where physiotherapy has only existed over the last 6 decades), the ratio of the licensed and practicing physiotherapist to the population i.e 1:68,098 person as against that of Belgium and Norway with 1:960 persons and 1:1,000 persons respectively. Also, until recently only five Nigerian universities offer physiotherapy. There are:

(1) University of Ibadan
Among the third world countries, there is still a very high level of illiteracy and not many people are aware of physiotherapy and the services it can render. The present condition of many beggars and disabled persons is secondary to the fact that they did not get physiotherapy treatment at the earlier stage of their condition. Clinical physiotherapy practice is for all but due to the lack of awareness, several patients have suffered unnecessarily and some have even died needlessly in their homes or hospitals. (Owoeye, 1996).

With modern trends in technology, physiotherapy equipment have also with the taxes. The equipment can be classified into

1. Clinical equipment
2. Research equipment
3. Evaluation, assessment or measuring equipment
in addition to already known equipment, modern ones with oscilloscopes to provide monitors for energy input, output and patients responses. Eg

1. Varieties of electrical stimulators for diagnostic or therapeutic purposes

2. TENS into both pain relieving models and obstetric conditions models

3. Short wave diathermic machines

4. The cybex digital work integration, an isokinetic system

5. Kinetrons

6. Orthotrons

7. Hydrotherapy equipments

8. Ultra – violet radiation lamps

9. Laser machines

10. Spirometers and automatic gas analysers

11. The twelve electro-cardiograph machines, etc (Owoeye 2003).

In a study conducted by Lee, K and Sheppard, L in Adelaide, Australia, they sought it determine final year
medical students' knowledge and perception of physiotherapy services within South Australia, and to identify any need for further education about physiotherapy within the undergraduate medical course. The survey done at two universities found that physiotherapists enjoyed a positive reputation especially when compared with alternative health practitioners. Although general knowledge was high, the medical students were largely unaware that physiotherapists work in occupational health settings and offer treatments for Parkinson's disease, incontinence and headaches. The medical students had received little formal education about physiotherapy throughout their undergraduate course and clinical experience had been their major source of information.

The findings suggest that medical students need more information about physiotherapy services. (Lec, K., Sheppard, L., 1998).
CHAPTER THREE

SUBJECTS, MATERIALS AND METHODS

3.0 INTRODUCTION

This study was aimed at determining the level of awareness and perception of undergraduate medical students concerning physiotherapy.

3.1 RESEARCH DESIGN

This study was carried out using questionnaires of the closed-end type to determine the level of awareness of medical students concerning physiotherapy.

3.2 LOCATION OF STUDY

The sites of this study were Imoke Hall, University of Nigeria Teaching Hospital, Enugu and the physiotherapy department at Ituku-Ozalla, Enugu.

3.3 RESEARCH POPULATION

A total of 105 subjects participated in the study. The subjects were all final year students of Medicine and surgery and Medical Rehabilitation in UNEC.

3.4 SAMPLING TECHNIQUE
The sampling technique employed in this study was probability sampling technique.

3.5 SAMPLE SIZE

All the members of the final year medicine and surgery class residing at Inke Hall participated together with the members of the final year class of Med. Rehab. A total of 163 questionnaires was printed and distributed but only 105 were returned.

3.6 SELECTION CRITERIA

a. Inclusion Criteria

1. Members of the final year class of the department of medicine and surgery resident in Imoke Hall

2. Final year students of the department of Med. Rehab that Attend postings at Ituku-Ozall

b. Exclusion Criteria

Students in other classes in the departments of Medical Rehabilitation and Medicine and surgery.
3.7 DEVELOPMENT OF RESEARCH INSTRUMENT

Since most of the population samplers of the study are literate, structured questionnaire was used to help the researcher ascertain the students’ opinion and views.

The perception questionnaire consisted of eight (8) structured questions.

3.8 PROCEDURE

The aim and purpose was written on the questionnaire and was thus explained to the subjects after which they gave their informed consent and duly completed the questionnaire.

3.7 DATA ANALYSIS

The data was analysed using pictorial representation and chi-square ($x^2$)
CHAPTER FOUR

RESULTS AND DISCUSSION

The data collected for this study are analysed and presented in this chapter.

Fig 1

Graphical representation of the level of awareness among the students

Table 1 showing the observed level of awareness among students of medical rehabilitation and Medicine and surgery.
Table 1 showing the observed level of awareness among students of med rehab and Medicine and surgery.

<table>
<thead>
<tr>
<th></th>
<th>Aware</th>
<th>Not aware</th>
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<tr>
<td>Med Rehab</td>
<td>36</td>
<td>8</td>
<td>44</td>
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<tr>
<td>Med and surg</td>
<td>52</td>
<td>9</td>
<td>61</td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>17</td>
<td>105</td>
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Table 2 computation of chi-squared distribution for data analysis at 0.05 level of significance.

<table>
<thead>
<tr>
<th>Level of awareness</th>
<th>X^2cal</th>
<th>x^2 tab</th>
<th>df</th>
<th>remarks</th>
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<tr>
<td></td>
<td>0.0793</td>
<td>3.84</td>
<td>1</td>
<td>NS</td>
</tr>
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NS Not Significant
DF Degree of Freedom

The total no of subjects who participated in the study is 105; both departments

Fig 1 is a pictorial representation of the data collected on the level of awareness among the students.

RESULTS

Table 1 shows the responses of 105 subjects on the level of awareness of physiotherapy. 44 subjects are students of Med Rehabilitation and of those 44, 36 subjects are aware of physiotherapy profession/practice
while 8 subjects are not quite aware of the scope of physiotherapy practice.

Out of the 61 subjects of Medicine and Surgery, 52 subjects are aware of the concept/scope of physiotherapy in health while the remaining 9 subjects are not aware of the profession.

Table 2 shows the computation of chi-squared distribution at 0.05 level of significance. It shows that the calculated $x^2$ (0.0793) tabulated $x^2$ (3.84) at 0.05, hence there is no significance difference between the observed values and the expected values in the level of awareness among medical students.

**DISCUSSION**

The purpose of this study was to determine the perception and awareness of medical students about physiotherapy. In reviewing the literature, it was evident that physiotherapy is patient-oriented and a very necessary part of the medical team research question are:

1. **In the Research Question One:** are medical students aware of physiotherapy and their
importance in the medical team, the findings show that indeed medical students are aware of physiotherapy, they know the role of physiotherapy in the medical profession and indeed have witnessed and appreciate physiotherapy treatment.

2. **Research Question Two:** With this research question, the researcher wants to know if there is need to further educate undergraduate medical students concerning physiotherapy. The findings reveal that while they are aware of physiotherapy, more education on the course will broaden their appreciation of the course both on practitioners and on members of a medical team.
CHAPTER FIVE

5.0 SUMMARY, CONCLUSION, RECOMMENDATIONS AND LIMITATIONS

5.1 INTRODUCTION

This chapter concludes and summarizes this research work, makes some recommendations and lists the limitations to the work.

5.2 SUMMARY

In summary, this research work was done to determine the perception and level of awareness of medical students concerning physiotherapy and it determines need for further education.

5.3 CONCLUSION

The results of this study suggest that with further education and information about physiotherapy, medical students can better appreciate physiotherapy as a course and a profession and no future team mates in health care delivery.
RECOMMENDATIONS

Based on the findings of this study, the following recommendations have been proferred;

1. A policy should be implemented that medicine and surgery students and other allied practices should be taught about physiotherapy in 'detail'.

2. As future members of the medical team, medicine and surgery students, physiotherapy students, student nurses, etc should occasionally go on ward rounds together so that they can better appreciate each other’s future jobs.

3. Further research should be carried out on the perception and awareness of physiotherapy students towards their course and profession.

4. A further study should be done incorporating other practices like nursing and laboratory sciences.

5. Medical rehabilitation students should be officially taught in-depth about their course.
5.5 LIMITATIONS

Some factors were responsible for limitations to this study and these include:

a. Some of the respondents in medical and surgery complained that they don't have time to answer the questions due to their upcoming exams.

b. Secondly some students in other department that would have been included in the study were not available due to the ongoing strike. Also, the loss of some of the questionnaires in transit made the return of the questionnaires for data analysis impossible.

c. The above problems affected the generalization of the findings made by the researcher.
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