

## EFFECT OF CAREER INFORMATION ON KNOWLEDGE OF PHYSIOTHERAPY AMONG SCIENCE STUDENTS IN SELECTED SENIOR HIGH SCHOOLS IN GREATER ACCRA.

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### Abstract

The purpose of the study was to determine the accuracy and the source of the knowledge of physiotherapy among senior high school students. Making an informed career choice is a key to both personal and professional development in the advancement of a career. Convenience sampling method was used to select a total of 325 public and private senior high school students. The experimental study design employed convenience sampling method to select a total of 325 public and private senior high school students. A self structured questionnaire in close question format was used to determine the student's accuracy of knowledge and the sources of information about physiotherapy, after which a lecture on physiotherapy was given to one group of students the other group, received no lectures. A second questionnaire was administered after a two week period. The SPSS version 13.0 was used to analyze the data. Descriptive statistics was used to summarize the data. Student Unpaired t-test was used to determine statistical differences between the mean of the variables. Significant level was set at 0.05 alpha. 71.1% of the students had some information about physical therapy. The physiotherapy task that most students (84%) identified was "instructs a patient in exercises" The task least familiar which the students (26%), was "works in industries." Sources of information about physiotherapy were media (73.6%) with 54.6% being television. Significant differences were found with the public students being more accurate in their knowledge of physiotherapy (mean score of 11.1 on a scale of 0.0 -14. 0). There was no significant difference in the accuracy of knowledge of physiotherapy in gender and seniority in both groups. There is no significant difference between students who receive the career information and those who did not. There seems to be misconceptions about certain aspects of the profession. Periodic education of the public particularly key stakeholders to the profession are crucial to effectively market the profession in the right way.

**Keywords:** *High School Students, Career Information, physiotherapy, knowledge*

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### Background to the Study

Career development is a process that a person addresses throughout life. A person chooses not only a career but also a lifestyle and in so doing makes an important life decision. According to Freud, laying stresses upon importance of work has a greater effect than any other technique of living in the direction of binding the individual more closely to reality (Freud, 1962).

Other researchers (Zufall,1976;Gleich,1978) have suggested that influential factors on career decision making include family support, role models, childhood experiences ,college advisors and the availability of factual information. Career development matures with age and becomes an important consideration by the time an individual enters high school(Hartley et al,1978;Gleich,1978).Individual first begin to learn about careers during this time, and most adolescents have expressed occupational preferences by the time they reach high school. They continue however to be unclear about skills and abilities needed for their prospective profession. It is appropriate for professions such as physical therapy and universities conducting recruitment efforts to help prepare and provide individuals with information to assist in the career decision making process. The profession of physical therapy has been in existence for many decades and is currently experiencing unprecedented growth (Pagliarulo, 1996; Murphy, 1995).Yet even with the tremendous growth in the field, researchers have documented that the general public does not understand the different aspects of the profession.

A concern has developed within the profession relating to this lack of public knowledge .this concern has given physical therapists a reason to look at the sources from which the public is receiving their information, as well as to ascertain what the public truly knows about physical therapy. One study (Tsuda et al, 1982) revealed that two common sources of information about physical therapy are the media and family members, but often these sources do not portray accurate information. Often the public is exposed to and is aware of the profession but does not necessarily understand the specific details. Accurate public knowledge of physical therapy is essential to enable individuals to make appropriate health care provider as well as be advocates for reimbursement for appropriate services, and to ensure survival of the profession. Education has a primary role in the creation of a knowledgeable public.

Information about various occupation and professions is an important factor when making career choice (Watanabe, 1995). Although the time for career decision making varies amongst individuals, it is usually made during the early or late adolescent years (Ginzberg et al., 1951). Physiotherapy profession in Ghana is still developing and many people of which high school students are no exception still associate physiotherapist with only massage and exercise. This does not auger well for the profession, there is therefore the need to sensitize the general public on the role of physiotherapist in the health care delivery system and other areas. It has been observed that high school students who progress to the university in Ghana are not adequately informed about the courses career options the situations of which leads to wrong choice and eventually find themselves in professions they did not intend to, they by wasting human resources. During the high school years, career development is characterized by

greater exploration and planning, self awareness, narrowing of options and eventually a shift of focus from self to the reality of the world of work. (Seligman, 1994) Due to lack of appropriate information to enable senior high school students to make appropriate career decisions to create informed consumers who can select the most appropriate health care provider and be advocates for reimbursement for appropriate services, it is imperative that accurate information be provided to these future leaders and in ways that maintains the dignity of the profession and to ensure survival of the profession hence the need for this research. The aim of the study is to investigate the effect of career information on the accuracy of the knowledge of physiotherapy among science students in selected senior high schools in Greater Accra.

### Methodology

The study was conducted in two selected SHS in the greater Accra region. The Greater Accra region which is the capital city of the republic of Ghana has sixty four (64) senior high schools out of a total of four hundred and seventy four (474) senior high schools in Ghana. The two schools were Wesley Grammar SHS (WGSHS) and Action Progressive SHS (APSHS) all in Accra. WGSHS is a public school. Subjects participating in the study were first and second year SHS students. The third year students were exempted in the study because they were writing their final exams. The research design used was experimental survey. Ethical approval for this study was obtained from the ethical review committee of the school of Allied health sciences. Permission was sought from the heads of participating SHS in the form of a written letter before the commencement of the study.

### Instruments for Data Collection

A self structured questionnaire composed of three parts was used. The questionnaire was suitably modified to suite the topic under study. Reliability for the self designed questionnaire gave a Cronbach's alpha of 0.778 which showed a high reliability for the questions and co-linearity, after a pilot study was conducted. The students used in the pilot study were not included in the actual study.

The first part of the questionnaire requested demographic information, including age, gender, year of study and prospective career choice. The second part of the questionnaire consisted of the student's awareness and a list of possible sources from which they may have obtained information about physiotherapy. The students were asked to place check marks next to all the sources from which they had received information about the profession. They were instructed to select as many of the sources as were applicable. Student's knowledge of institution of physiotherapy training was also accessed. The last part of the questionnaire consisted of statements concerning knowledge of physiotherapy tasks in addition to distracters to portray possible misconceptions of physiotherapy. These statement and distracters were used as dependent variables. 14 tasks were briefly described and the students were asked to identify which tasks a physiotherapist would likely perform. Of the 14 tasks listed 10 tasks were actual duties a physiotherapist would perform and 4 tasks were distracters. In this part of the survey students were asked to choose yes no or don't know as their answer. The total number of correct answers were tallied for this section which consisted of 10 yes responses for the activities physiotherapist perform and 4 no answers for the distracter for a total of 14 possible points.

### Procedure for Data Collection

The principal and administrators of each school were contacted to obtain approval to conduct the survey. Prior to conducting the survey, the students were given a brief introduction to the purpose of the study. Consent was sought from the students and they were instructed to answer the questions as honestly as possible and to pick the answer don't know when appropriate. The students were required to complete the questionnaire after which a lecture on physiotherapy was delivered to one of the classes and after two weeks a second questionnaire was administered again by a different group.

### Data Analysis

The statistical product and services solution (SPSS) 13.0 student version was used to analyze the data. A descriptive and inferential analysis was performed including frequency distribution for socio-demographic characteristics of the respondents, their prospective career choice awareness and sources of information on physiotherapy and the accuracy of their knowledge of physiotherapy. Unpaired student t-test analyses was performed on the respondents pre and post mean scores to find if there is any significant difference between gender, year of study, school and the lecture on the knowledge of physiotherapy amongst the respondents.

### Results

A total of 325 survey questionnaires administered were returned and analyzed.

The mean and standard deviation of the age were 16.85 and 1.4 respectively and ranges from 14 and 22 (mean  $16.85 \pm 1.4$  years).

48.3% of the respondents attend a government assisted senior high school.

40.6% were female and 59.4% were male.

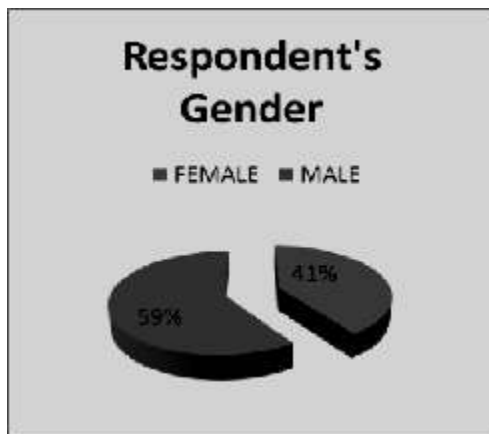


Fig 1: Distribution of Respondent's Gender

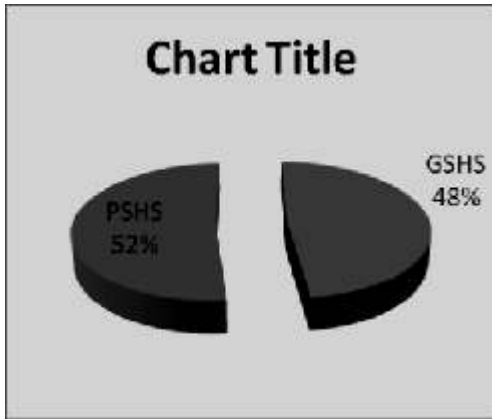


Fig 2: Distribution of Respondent's Institution of Study

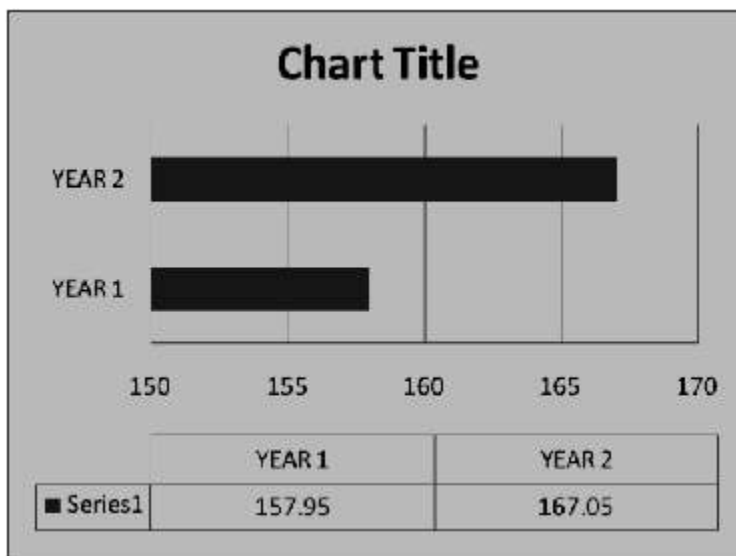


Fig 3: Distribution of respondent's year of SHS education

All the students surveyed had made a decision on a particular career of their choice, majority of the respondents 70.2% indicated a medical or health related career choice and 29.8% indicated a non health related career choice.

Table 1: The distribution of the influence on respondents to choose their career

Influence	Frequency	Percentage
My Parents like the profession	11	3.4
There will be ready job after graduation	30	9.2
They are well paid	10	3.1
I personally like the profession	274	84.3

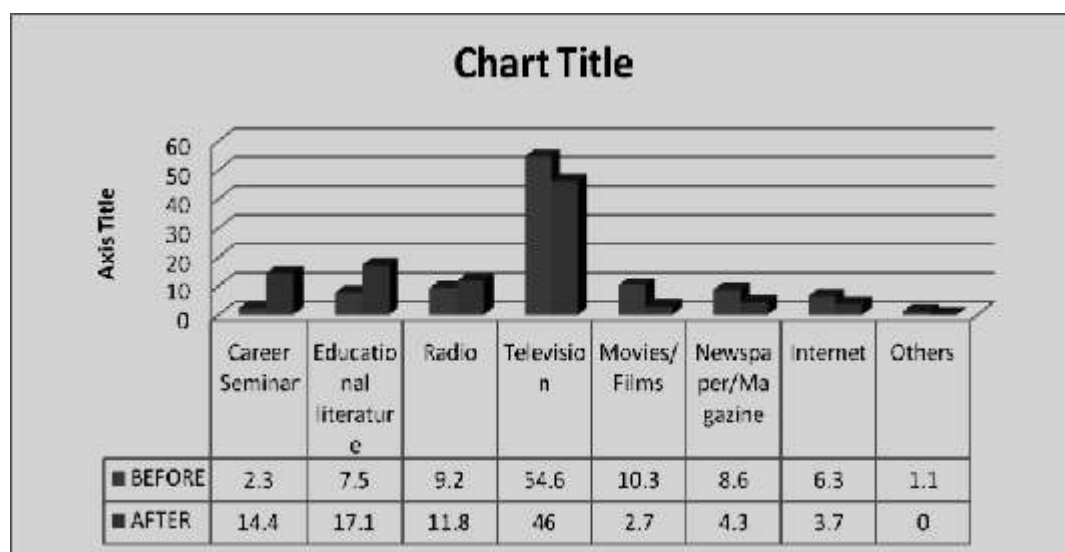


Fig 4: The distribution of the sources of information from the media before and after the career information.

There was an improvement in the awareness of physiotherapy after the career information from about 70% to 90 %.

Table 2: The mean (and standard deviation, range) scores for the subgroups before the career information.

	n	Mean	Standard deviation	Range
School A	157	8.5	2.7	0-12
School B	168	8.3	2.7	0-12
First year	158	8.5	2.5	0-12
Second year	167	8.2	2.9	0-12
Male	193	8.4	2.7	0-12
Female	132	8.4	2.6	0-12
Lecture	167	8.7	2.3	0-12
No lecture	158	8.0	3.0	0-12

Table 3: The mean (and standard deviation, range) scores for the subgroups after the career information.

	n	Mean	Standard deviation	Range
School A	154	11.1	1.7	0-14
School B	170	9.2	2.5	0-14
First year	161	10.4	2.2	0-14
Second year	163	9.9	2.5	0-14
Male	183	10.1	2.4	0-14
Female	140	10.1	2.3	0-14
Lecture	165	10.4	2.3	0-14
No lecture	159	9.8	2.4	0-14

Table 4: unpaired student t-test analysis of both pre and post scores of the various variables

	Category	Df	t-Value	p-Value
	GENDER(M/F)			
PRE		323	-0.179	0.858
POST		313	-0.654	0.514
	SCHOOL(A/B)			
PRE		323	0.828	0.408
POST		313	7.723	0.001
	YEAR OF STUDY 1 <sup>ST</sup> /2 <sup>ND</sup>			
PRE		323	1.145	0.253
POST		313	1.778	0.076
	LECTURE			
PRE		323	2.215	0.027
POST		313	1.795	0.074

### Discussion

The high-school students who participated in this study proved to be more knowledgeable about physiotherapy than the high school students in the 1982 study by Tsuda (Tsuda et al, 1982). The students surveyed had a mean score of 8.37 compared with an average score of 6.4 found by Tsuda et al. This finding suggests that over the past 26 years, high-school students have become more knowledgeable about what physiotherapy involves, and it is consistent with the growth of the profession and its placement in the top tier of occupations projected to grow the fastest by the Bureau of Labour statistics (Bureau of Labour Statistics)

Given the scenario of having adequate physical therapy professionals and possibly an oversupply, as predicted in the Vector study\_ (Vector Research 1997) it is important for high-school students to have accurate knowledge of the profession to make wise career choices. Thus students who are knowledgeable about physiotherapy may be better able to make a career decision based on their likes and dislikes rather than on an expressed need or prediction for more professionals. In addition, the high-school students of today are

Tomorrow's consumers of healthcare, it is more important for them to have accurate information about the profession so that they can make wise choices as consumers regarding health care needs. Therefore, information from this study may provide an indication of where future health educating programs should be aimed at.

Students who received the career information had high scores as compared to those who did not receive the career information; however this difference was not significant. This finding may be due to information dissemination between the two groups after the career information.

Gender also played a significant role in correctly identifying three tasks. Female students were more likely to associate “instructs a patient on exercises”, “gives massage” and 'provide emotional support” with physiotherapists. These results suggest that female students may be somewhat more familiar with the profession than male students. This finding is not surprising, because the profession is composed of a higher percentage of women .It suggests, however, that in order to recruit more men into the profession, education about the profession may need to be directed toward the male population of high-school students. Students were also found to use many sources to obtain information about physiotherapy. All 5 sources provided were cited as being used by the students. The source most commonly cited was media (73.6%) with 54.6% of those cited media indicating that they had received information about physiotherapy from television. This finding is about 20% higher than that identified by Tsuda et al (1982) and may be attributed to an increase in the portrayal of physiotherapists on television since the initial study in 1982. This is also consistent with the study by Stevens (1985) who indicated that more television shows are starting to focus on health issues and television news channels are providing more medical information. Therefore, it is likely that the opportunity to learn about health careers through television has increased. Some differences were found between the demographic groups and the various sources used. Government assisted senior high school students were more likely to use newspaper or magazine and private students were more likely to use educational literature to learn about the profession. It may be that counselors in private schools provide more literature compared with counselors in Government assisted schools. Given the gender differences identified in the schools surveyed, it appears that male students use radio and newspaper or magazine to obtain information about the profession, as opposed to female students who were more likely to refer to movies or films.

### Conclusion

The high school students in this study proved to have some accurate knowledge about what the physical therapy profession entails. There seem however to be some misconception about certain aspects of the profession, such as physiotherapists are bone setters. Television was found to be the most common source used by students to learn about physiotherapy. Information on the type of knowledge and its source possessed by students may be useful for institutions running physiotherapy programmes and for the profession to develop effective marketing strategies to educate high school students about physiotherapy thereby equipping students with accurate information in making sound career decision. It is therefore recommended that knowledge of the type of information identified in this study can be



helpful in designing a programme to educate students about physiotherapy. It is important for the profession and particularly institutions of higher education to invest in this education for the following reasons: to enable adolescents make appropriate career decisions, to create informed consumers who can select the most appropriate health care provider and be advocates for reimbursement for appropriate services and to ensure survival of the profession.

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