

## **Clinical Placement effectiveness on Physiotherapy Students at Ahfad University in Sudan**

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**Abstract:**

**Background:** Clinical placement programs are very important strategies that help physiotherapy students in acquiring more practical skills and confidence to communicate, assess, set goals and treat patients. This study was designed to assess the effect of clinical placement on the confidence and skills on physiotherapy students at Ahfad University for Women (AUW) in Omdurman, Sudan. **Method:** A descriptive cross-sectional study used questionnaires to collect the data on the objectives. The study population includes 15 students (18.7%) at second year, 19 students (23.7%) at third year, 18 students (22.5%) at fourth year and 28 students (35%) at fifth year. Skills and confidence was determined using assessment questions in the questionnaire. **Results:** The results obtained revealed that students in the academic years that were exposed to more clinic placements (i.e. 4th and 5th year students) showed high confidence in selecting appropriate treatment (44.4%) (32.1%) and most of the confidence assessment questions. Also most of the fourth and fifth year students showed better results in the skills assessment questions than second and third year students. **Conclusion and Recommendations:** This study concluded that the more exposure to clinical placement the more it positively affects the confidence and skills of physiotherapy students at AUW. Therefore it recommends the increase of clinical exposure to students in different physiotherapy universities across Sudan.

**Keywords:**

Clinical Placement, Physiotherapy Students, Ahfad University.

### 1. Introduction:

Physiotherapy is a health profession whose primary purpose is the promotion of optimal health and function (WCPT, 2022). Clinical education enables physiotherapy students to acquire information, skills and competencies necessary for clinical practice, and to gain confidence in their clinical reasoning and application of theoretical knowledge. Ahfad University for Women (AUW) is a private women's University in Omdurman, Sudan that was founded in 1966 (Abdelnour, 2020; Ali *et al*, 2019). From early 2005, AUW took up the challenge of approaching institutions in countries with strong physiotherapy education programmes, seeking a partnership with Bergen University College (BUC) in Norway to help establish an internationally recognized entry-level physiotherapy education programmed at the bachelor level. Clinical placement is an activity that contributes towards clinical/professional education and training requirements for the physiotherapy program at AUW. It is necessary for successful course completion. Furthermore, clinical placement is so important to improve the confidence of the students and help them to deal with many different cases which motivated the student to know more and work practically more thus the skills will be improved and more information will be gained. The physiotherapy program at AUW starts clinical placement at second year. When the students reach the last year, they complete 15 clinical placements.

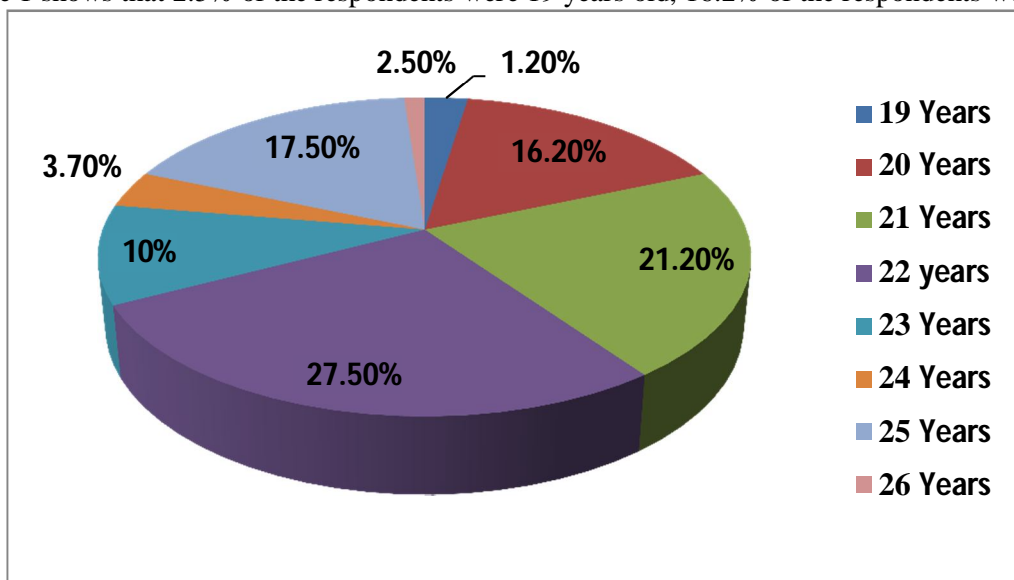
### 2. Methodology:

Descriptive cross sectional design is used. The study was conducted in AUW physiotherapy department in Omdurman. The physiotherapy programme is 5 years with an average annual class of 30 students. Students of 1<sup>st</sup> year of the program been excluded as they are not yet involved in clinical placement. Therefore, targeted population where 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> year students which was 132 students. Total of 80 students out of 132 physiotherapy students participated in the study and 52 students didn't participate. Data was collected from questionnaire filled by physiotherapy students, it was divided into three parts: 1- Demographic data. 2. Questions about awareness. 3- Questions to check effectiveness extracted from national physiotherapy exams that is designed by The Federation of State Boards of Physical Therapy (FSBPT). Data analyzed manually then results have been presented in the form of Pie Chart and column Graphics. Consent of AUW, School of Health Sciences, and physiotherapy department was obtained. Verbal consent of each respondent who participated in the study was obtained before enrolment in the study. All obtained information was treated with outmost confidentiality in which neither names nor emails were asked in the questionnaire.

### 3. Results:

#### Figure 1. Age:

Figure 1 shows that 2.5% of the respondents were 19 years old, 16.2% of the respondents were 20



years old, 21.2% of the respondents were 21 years old, 27.5% of the respondents were 22 years old, 10% of the respondents were 23 years old, 3.7% of the respondents were 24 years old, 17.5% of the respondents were 25 years old, and 1.2% of the respondents were 26 years old.

**Figure 2. Nationality:**

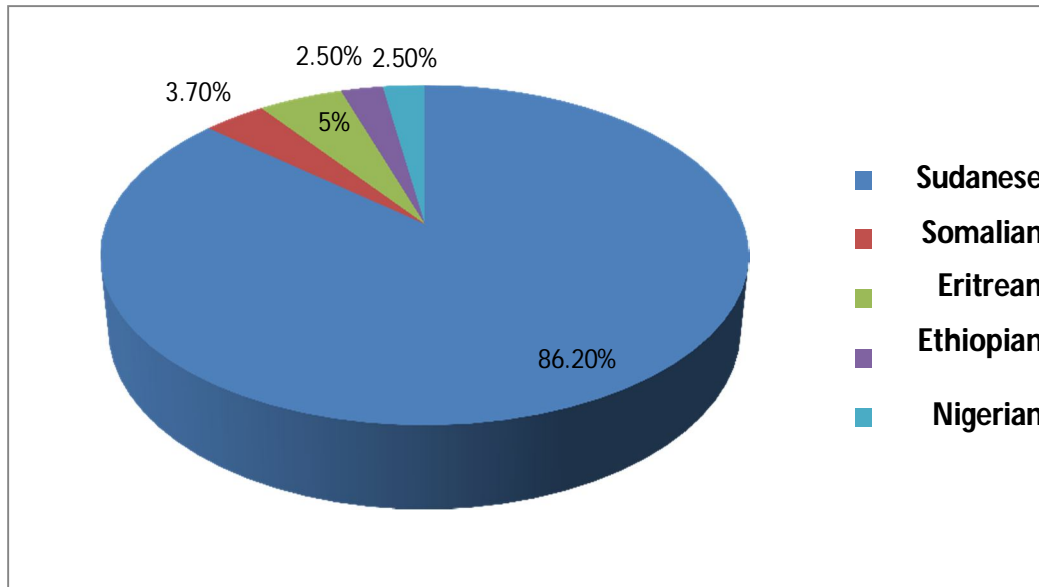
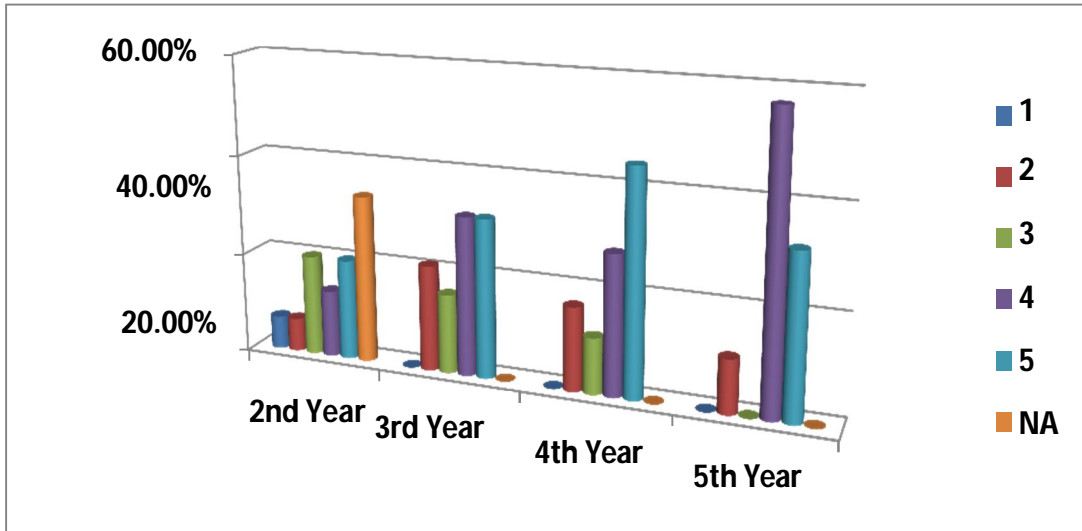


Figure 2 shows that 86.2% of the respondents were Sudanese, 3.7% of the respondents were Somali, 5% of the respondents were Eritrean, 2.5% of the respondents were Ethiopian, and 2.5% of the respondents were Nigerian.

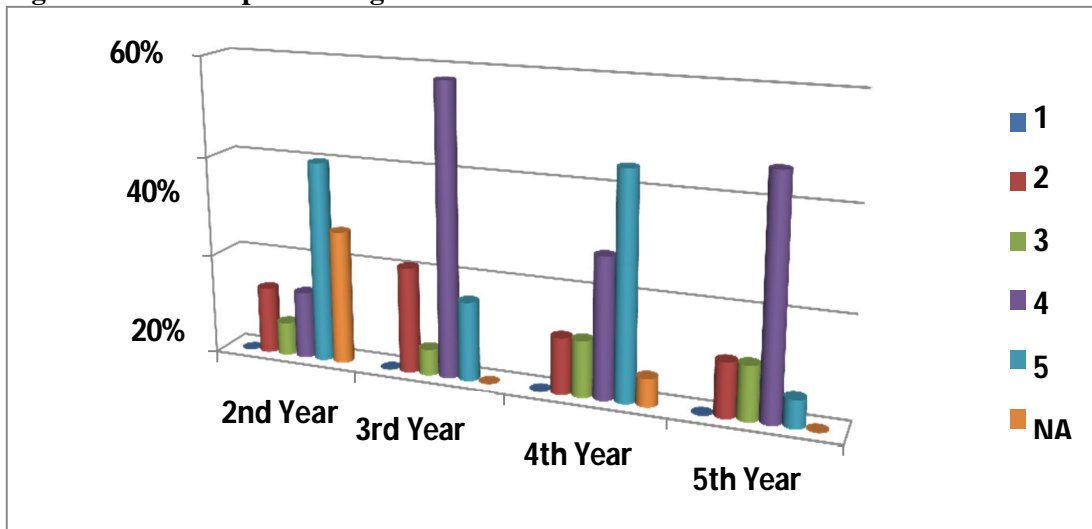
**Figure 3. Student Select appropriate treatment/intervention as a result of assessment and hypothesis:**



1 (Not at all Confident), 2 (A Little Confident), 3 (Undecided), 4 (Fairly Confident), 5 (Very Confident), and NA (Not Applicable).

Figure 3 shows the level of student confidence to select appropriate treatment/intervention as a result of assessment and hypothesis. Students of 2<sup>nd</sup> (6.6% not confident, 6.6% little confident, 20% undecided, 13.3% fairly confident, 20% very confident, and 33.3% not applicable). Students of 3<sup>rd</sup> year (0% not confident, 21.0% little confident, 15.7% undecided, 31.5% fairly confident, 31.5% very confident, and 0% not applicable). Students of 4<sup>th</sup> year (0% not confident, 16.6% little confident, 11.1% undecided, 27.7% fairly confident, 44.4% very confident, and 0% not applicable). Students of 5<sup>th</sup> year (0% not confident, 10.7% little confident, 0% undecided, 57.1% fairly confident, 32.1% very confident, and 0% not applicable).

**Figure 4. Students performing treatments and interventions:**



1 (Not at all Confident), 2 (A Little Confident), 3 (Undecided), 4 (Fairly Confident), 5 (Very Confident), and NA (Not Applicable).

Figure 4 shows the level of confidence of students in performing treatments and interventions. Students of 2<sup>nd</sup> year (0% not confident, 13.3% little confident, 6.6% undecided, 13.3% fairly

confident, 40% very confident, and 26.6% not applicable). Students of 3<sup>rd</sup> year (0% not confident, 21.0% little confident, 5.2% undecided, 57.8% fairly confident, 15.7% very confident, and 0% not applicable). Students of 4<sup>th</sup> year (0% not confident, 11.1% little confident, 11.1% undecided, 27.7% fairly confident, 44.4% very confident, and 5.5% not applicable). Students of 5<sup>th</sup> year (0% not confident, 10.7% little confident, 10.7% undecided, 46.4% fairly confident, 32.1% very confident, and 0% not applicable).

**Figure 5. Total results of the 5 cases of skills:**

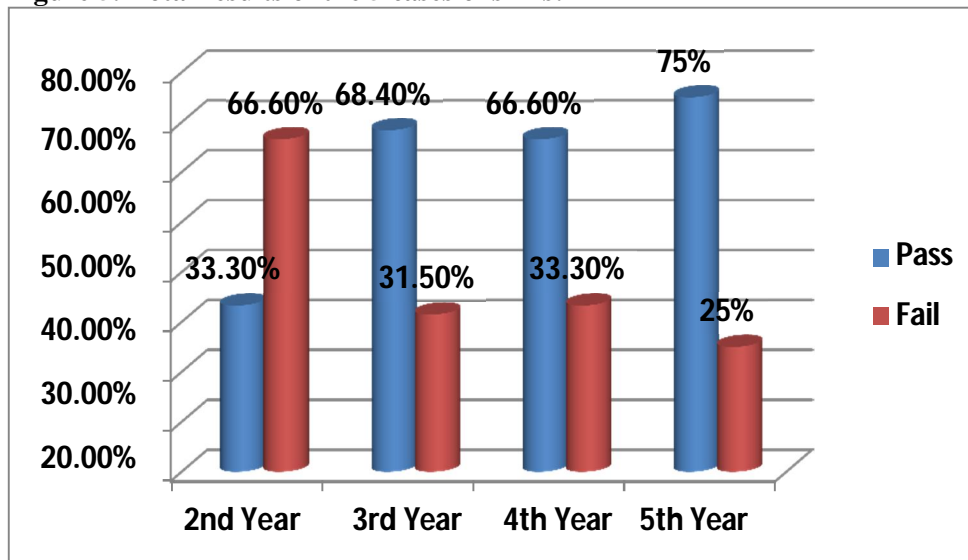


Figure 5 shows the student result of 5 clinical cases. There were 66.6% of 2<sup>nd</sup> year fail and 33.3% pass. In the 3<sup>rd</sup> year, 31.5% of 3<sup>rd</sup> year fail and 68.4% pass the exam while 33.3% of 4<sup>th</sup> year fail and 66.6% pass the exam, and finally 25% of 5<sup>th</sup> year fail and 75% pass the exam.

#### 4. Discussion:

They were 80 students in total in the study, their ages varies from 19 to 26 years old, and in 4 different academic years with different nationalities but most of them were Sudanese. There were no focusing on the gender variable as AUW is for only female students.

Results showed that 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year, whom exposed to more clinical placements have higher confident in select treatment and intervention than that of 2<sup>nd</sup> year (attend few clinical placements). On the other hand. It the same in the confidence in performing those treatments and interventions techniques. In similar studies by Chesterton *et al* (2023) and Wright *et al* (2019), showed that the students frequently lacked confidence when they first entered the clinical interaction, but as they interacted with the client and/or picked up knowledge from their peers, they gradually developed it, the more experiences students had, the more confident they became and as they gained experience, their confidence grew. In another similar study by O'Shea *et al* (2023), showed that the earlier you integrate students in clinical environments and practices this will improve and elevate their confidence so that they can participate in readily social dialogue with their patients.

In testing the skills of the students according to their knowledge and skills by 5 cases to be solved by choosing the right answer, the grades of 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> year that attended more clinical placements were higher than the grades of 2<sup>nd</sup> year that attend lesser clinical placements. Similar study by Ahern & Donnell (2023), showed that the reflections of senior students and clinicians are different from students when they first start their clinical experience, in the latter placement, students were more confident and more focused on the client compared with the first placement showing that the more

you integrate students in clinical placements the more they gain confidence, skilled and understanding of their own profession.

#### **5. Conclusion:**

The study found that clinical placements do affect the confidence and skills of the physiotherapy students, and whenever the students is exposed to more clinical placement the more they improve their confidence and skills. This is shown clearly in confidence in conducting patient assessment, choosing proper physiotherapy intervention, and understanding different clinical conditions students might handle in their practical carrier.

#### **6. Recommendation:**

Clinical placement exposure should be increased in the universities of Sudan for undergraduate physiotherapy students due to its high effect on the confidence and skills to help improve their capability in dealing with patients and improve their skills in handling the patients with different clinical cases.

#### **7. Limitations of the Study:**

Results were seen in AUW physiotherapy students only, therefore results aren't generalized for all physiotherapy students in Sudan.

#### **8. Acknowledgment:**

I appreciate the hard work, time, and patience of my students Haidy Crisian, Mariana Bolis, and Mekdes Aschalew in the physiotherapy program at AUW to finish this study. I also appreciate their generous excitement and collaboration in publishing this article.

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