



RESEARCH ARTICLE

CLINICAL PLACEMENT AND CLINICAL SKILLS AT AHFAD UNIVERSITY FOR WOMEN PHYSIOTHERAPY EDUCATION

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ABSTRACT

Background: Clinical placement programs are very important experience that help physiotherapy students in acquiring more practical skills and confidence to communicate, assess, set goals, and treat patients. It is important part of the physiotherapy education curriculum that students must go through in order to obtain the Bachelor degree. 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 conducted at the physiotherapy department at AUW. The study population includes total of 80 students distributed as follows: 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 were determined using assessment questions based on case studies. **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%) and (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:** Students of 5th year at AUW physiotherapy program gain more confidence and problem-solving skills compared to other years. **Recommendations:** More in depth investigations is required to assess, evaluate, and improve the physiotherapy educational programs specifically at AUW and generally in Sudan.

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INTRODUCTION

Ahfad University for Women (AUW) is a private women's university in Omdurman, Sudan. It founded in 1966, by Yusuf Badri, son of the Mahdist soldier Babiker Badri (Mohamed, 2022). The University began with only 23 students and 3 teachers. It was the first Sudanese women's college. The current president is Dr. Gasim Badri, Yusuf Badri's son (Holmarsdottir *et al.*, 2013). Ahfad University for Women (AUW) plays an important role in educating women at the lowest prices orscholarship in various scientific fields. The university has the following undergraduate schools: School of Management Studies (formerly School of Organizational Management), School of Health Sciences, School of Psychology and Pre-School Education, School of Rural Extension Education and Development, School of Medicine, and School of Pharmacy. It offers Post-Graduate programs in Human Nutrition, Gender and Development, Gender and Peace Studies, Rural Development, Business Administration, Microfinance, and Counseling and Health Psychology. Finally, it offers High Diploma in Teaching of English as a Foreign Language and High Diploma in Teaching of Family Sciences (Alsahi, 2023). On the other hand, AUW join different collaboration programs with national and international organizations.

For example, AUW collaborates on the European Union (EU) funded consortium projects on Human Resources for Primary Care in Africa. The collaboration focuses on improving human resources for health in Mbarara District, Uganda. The project aims to analyze the actual situation of human resources in health in Africa and to test interventions, strategies and policies that may improve the situation and to maximize networking and synergies (Mulumba & Olema, 2009). In physiotherapy education, clinical learning skills are considered to be among the key competencies a physiotherapist should possess it is fundamental to undergraduate health professions. Clinical placement models applied on students provide structure to clinical learning (Abdalmagid *et al.*, 2023). Therefore, evaluating and reviewing those models could contribute to supporting curriculum transformation to enhance teaching in the clinical environments for undergraduate health professions students (Abdelnour *et al.*, 2023; Haugland *et al.*, 2022; Haugland *et al.*, 2014). A better understanding will benefit physiotherapy education to explore how undergraduate physiotherapy students learn clinical reasoning skills and gain confidence during placements (Abdalmagid *et al.*, 2023). Generally, universities don't give much importance for clinical placements at the first years. Many physiotherapy programs start their clinical education placement in the third and fourth year (Abdelnour, 2020).

It is possible that students will depend on their theoretical information only, when they reach the last years, they will not be able to deal with the patients because of low confidence and poor practical skills. In AUW, clinical placement for the physiotherapy students starts in second year (first year of specialization in physiotherapy), when the students reach the last year, they complete 15 clinical placements, they be so confident and have good skills making them able to deal with patients (Abdalmagid *et al*, 2023: Abdelnour *et al*, 2023). Clinical placement is the best way to guide the undergraduate students to learn the right ways of dealing with patients and to gain the confidence to communicate and the skills to work perfectly. It can be occurred in a clinical setting outside the university educational setting. Although it may occur in university clinics and include a variety of activities such as rotations, observations, and selective placements across all or some years of a particular course, depending upon the accredited course requirements (Tielemans *et al*, 2023). The physiotherapy education program in AUW has different subjects and rehabilitation fields needed in the physiotherapy profession such as Pain Management, Neurology Rehabilitation, Women's Health, Pediatric Rehabilitation, Sports Injuries Rehabilitation, Amputation Rehabilitation, Orthopedics Rehabilitation, Occupational Therapy, Electrotherapy, Therapeutic Exercises, Cardiopulmonary Rehabilitation, Community Based Rehabilitation, and Geriatrics Rehabilitation. The base for those rehabilitation fields is basic major subjects such as Biology, Human Anatomy, Pathology, Physiology, Biochemistry, Child Development, Psychology, and Assessment & Evaluation. Classrooms and labs are used inside the university to teach those subjects. Presentations, assignments, quizzes, and exams used as course assessment tools (Haugland *et al*, 2014). At the last year (5th year), there is Objective Structured Clinical Examination (OSCE). It is to examine the student knowledge, skills, and confident before graduation. It is recommended to investigate the clinical experience in the health sciences educational programs. The aim of this recommendation is the establishment of quality clinical experience (Al Sebace *et al*, 2017). Therefore, 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.

METHODOLOGY

Descriptive cross-sectional design is used. The study was conducted in AUW physiotherapy department in Omdurman. The physiotherapy programs are 5 years with an average annual class of 30 students. Students of 1st year of the program been excluded as they are not yet involved in clinical placement. Therefore, targeted population where 2nd, 3rd, 4th, and 5th 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. Ethical approval obtained through consent forms of AUW, School of Health Sciences, and physiotherapy department. 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.

RESULTS

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.

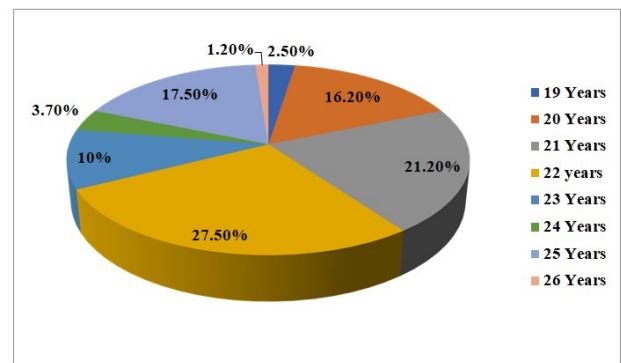


Figure 1. Age

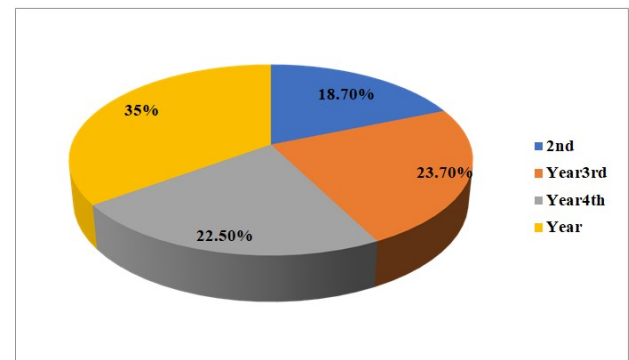


Figure 2. Academic year

Figure (2) shows that 18.7% of the respondents were second year, 23.7% of the respondents were third year, 22.5% of the respondents were fourth year, and 35% of the respondents were fifth year.

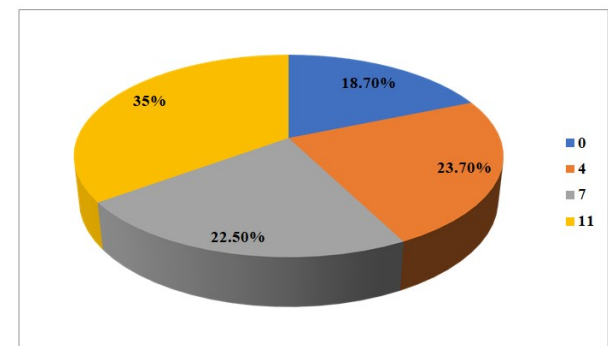


Figure 3. Number of clinical placements attended

Figure (3) shows that 18.7% of the respondents did not attend any clinical placement, 23.7% of the respondents attend 4 clinical placements, 22.5% of the respondents attend 7 clinical placements, and 35% of the respondents attend 11 clinical placements.

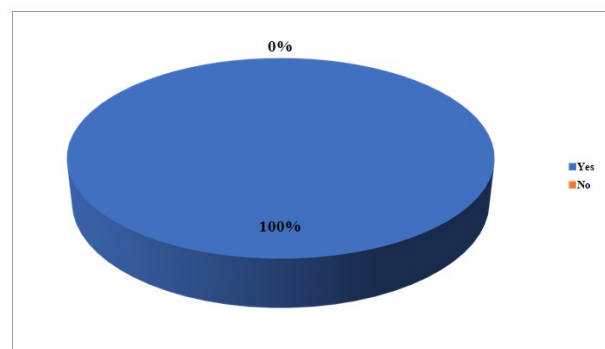


Figure 4. Get enough clinical placement exposure in AUW:

Figure (4) shows that 100% of the respondents think that they Get enough clinical placement exposure in AUW, and 0% of the respondents does not think that they Get enough clinical placement exposure in AUW.

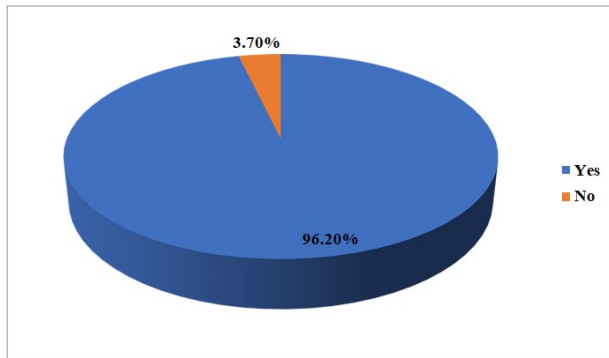


Figure 5. Clinical placements affect the confidence and skills of Physiotherapy students

Figure (5) shows that 96.2% of the respondents think that Clinical placements affect the confidence and skills of Physiotherapy students, and 3.7% of the respondents does not think that Clinical placements affect the confidence and skills of Physiotherapy students.

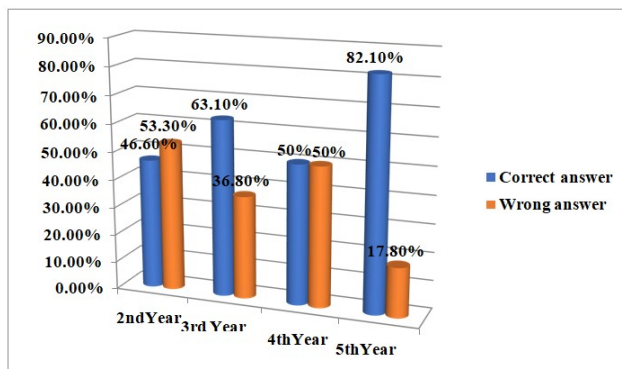


Figure 6. Skills of the students according to their knowledge and skills

Figure (6) shows that 46.6% of 2nd year, 63.1% of 3rd year, 50% of 4th year, and 82.1% of 5th year answered the case the correct answer and 53.3% of 2nd year, 36.8% of 3rd year, 50% of 4th year, and 17.8% of 5th year answered the case the wrong answer

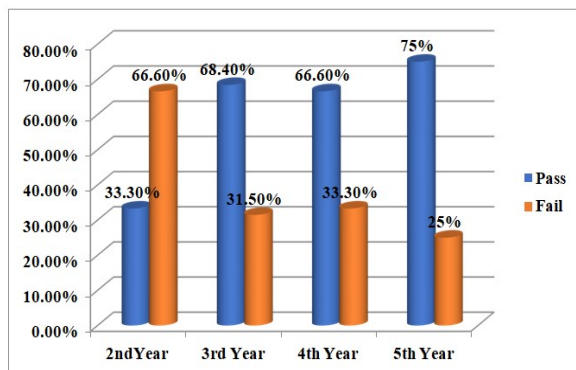


Figure 7. Total results of the 5 cases of skills

Figure (7) shows that 66.6% of 2nd year fail and 33.3% pass, 31.5% of 3rd year fail and 68.4% pass the exam, 33.3% of 4th year fail and 66.6% pass the exam and finally 25% of 5th year fail and 75% pass the exam.

DISCUSSION

There were 132 physiotherapy students at AUW targeted to participate in the study. The response was 80 students which gives a response rate of 60%. If the response rate is between 50 and 60% is often considered acceptable (Besnier *et al*, 2019). Student's age was between 19 years old and 26. The highest age range was between 21 and 22 years old. Koch *et al*, (2015), mentioned that after 18 years old the student expected to finish the traditional school years and might enter higher school education while none traditional age in higher school education reaches 25 years old and older. Students of 5th year were the highest participation rate compared to other years. At the same time, lowest level of participation was among 2nd year. It not clear what is the relationship between level of academic year and the participation rate in this study. In other words, no evidence shows that senior students are more willing in such studies. In this study, the argument could focus on the fact if that 5th year students are more motivated due to their experience as senior students or not. Regarding the clinical experience, the study showed that 5th year students attended 11 clinical settings. This is due to the design of the physiotherapy curriculum at AUW. The details plan for program design discussed by Haugland *et al* (2014), and showed that the curriculum designed according to the World Confederation for Physical Therapy (WCPT) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) guidelines. Therefore, all students expressed their positive perception on their clinical experience at AUW physiotherapy program. Students agreed that they had enough exposure to the clinical settings. This can be aligned with the findings of a previous study titled "Physiotherapy Students and Clinical Education in Sudan" which found that physiotherapy students at AUW gain good clinical skills and confidence through clinical placement (Abdalmagid *et al*, 2023). The confidence benefit was clear in the result of this study in figure 5 in the previous chapter.

The study found that many students think that the clinical placement should start as early as possible. Student specifically think the clinical placement should start in the 2nd year. At AUW physiotherapy program, clinical placement starts at 2nd year but this is not agreed with figure 2 due to the fact that 2nd year students still didn't start their placement at the time of data collection of this study. Knowing the fact that most of the physiotherapy programs use the 1st year for basic subjects. Students can be exposed to clinical placement at 2nd year after finishing the basic subjects. Different literature mentioned this point in different setting. For example, the clinical placement starts at 2nd year in the physiotherapy education in Australia & South Africa (Johnston *et al*, 2018; Naidoo *et al*, 2018). In Sudan, no available data showing the year that clinical placement starts in the physiotherapy education in different institutions than AUW. But from researcher's experience, different institutions start their clinical placement only in the final year. The level of knowledge in this study showed that the score that 5th students had when they answered the clinical case study was higher compared to other years. On the other hand, the lowest score achieved by 2nd year students. This is to agree with the fact the more student's exposure to clinical experience in health professional's educational programs means more confidence in problem solving skills and ability to learn (Pépin *et al*, 2022).

CONCLUSION

The physiotherapy curriculum at AUW designed according to WPCT and UNESCO standards containing 11 clinical placement experiences for students. Students of 5th year at AUW physiotherapy program gain more confidence and problem-solving skills compared to 2nd, 3rd, and 4th year students.

Recommendation

More in depth investigations is required to assess, evaluate, and improve the physiotherapy educational programs specifically at AUW and generally in Sudan.

Limitations of the Study: Results were seen in AUW physiotherapy students only; therefore, results aren'tgeneralized for all physiotherapy students in Sudan.

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Conflict of interest: None.

REFERENCES

Abdalmagid, T. Abdelnour, H. Aladwan, R. 2023. Physiotherapy Students and Clinical Education in Sudan. *International Journal of Novel Research in Healthcare and Nursing*; 103: 197–208. DOI: <https://doi.org/10.5281/zenodo.10046022>. ISSN: 2394-7330. Online at: <file:///C:/Users/USER/Desktop/PUBLICATIONS/TARIQ/Physiotherapy%20Students%20and%20Clinical-27102023-1%201.pdf>

Abdelnour, H. Crisian, H. Boil, M. Aschalew, M. 2023. Clinical Placement effectiveness on Physiotherapy Students at Ahfad University in Sudan. *International Journal of Education and Research*, 119: 135–142. ISSN: 2411-5681. Online at: <https://www.ijern.com/journal/2023/September-2023/07.pdf>

Abdelnour, H. 2020. Evaluating the feasibility of the expansion of community-based rehabilitation into the physiotherapy curriculum in Ahfad University for women Sudan. Online at: https://etd.uwc.ac.za/bitstream/handle/11394/7273/abdelnour_phd_chs_2020.pdf?sequence=1&isAllowed=y

Alsahi, H. 2023. Mapping Gender and Women’s Studies in the Arab Gulf: How to Move It from the Margins?. *Politics & Gender*, 191, 296-301. DOI: <https://doi.org/10.1017/S1743923X22000423>

Al Sebaee, H. A., Aziz, E. M. A., & Mohamed, N. T. 2017. Relationship between nursing students’ clinical placement satisfaction, academic self-efficacy and achievement. *IOSR Journal of Nursing and Health Science*, 602, 101-112. ISSN: 2320–1940. DOI: 10.9790/1959-060203101112. Online at: https://scholar.cu.edu.eg/sites/default/files/nadiataha/files/clinical_placement.pdf

Besnier, E., Hobeika, S., NSeir, S., Lambiotte, F., Du Cheyron, D., Sauneuf, B., ... & Girault, C. 2019. High-flow nasal cannula therapy: clinical practice in intensive care units. *Annals of intensive care*, 9, 1-8. DOI: <https://doi.org/10.1186/s13613-019-0569-9>. Online at: <file:///C:/Users/USER/Downloads/s13613-019-0569-9.pdf>

Haugland, M., Aanes, M. M., Jensen, G., & Salih, O. 2022. Norwegian physiotherapy teachers’ experience from working in a partnership project in Sudan-A case study approach. *Physiotherapy Theory and Practice*, 3812, 2111-2121. DOI: 10.1080/09593985.2021.1901325. Online at: <https://www.tandfonline.com/doi/pdf/10.1080/09593985.2021.1901325>

Haugland, M., Sørsdahl, A. B., Salih, A. S., & Salih, O. 2014. Factors for success in collaboration between high-and low-income countries: Developing a physiotherapy education programme in Sudan. *European Journal of Physiotherapy*, 163, 130-138. ISSN: 2167-9169. DOI: 10.3109/21679169.2014.913316. Online at: <https://www.tandfonline.com/doi/pdf/10.3109/21679169.2014.913316>

Holmarsdottir, H. B., Nomlomo, V., Farag, A. I., & Desai, Z. Eds.. 2013. *Gendered voices: Reflections on gender and education in South Africa and Sudan* Vol. 23. Springer Science & Business Media. <https://meteor.aihw.gov.au/content/544787> Australian Institute of Health and Welfare 2017.

Johnston, C. L., Wilson, J. C., Wakely, L., Walmsley, S., & Newstead, C. J. 2018. Simulation as a component of introductory physiotherapy clinical placements. *New Zealand Journal of Physiotherapy*, 463, 95-104. Online at: https://researchoutput.csu.edu.au/ws/portalfiles/portal/43830541/43830469_Published_article.pdf

Koch, J., Everett, B., Phillips, J., & Davidson, P. M. 2015. Is there a relationship between the diversity characteristics of nursing students and their clinical placement experiences? A literature review. *Collegian*, 223, 307-318. DOI: <https://doi.org/10.1016/j.colegn.2014.03.007>

Mohamed, E. S. 2022. Female Human Capital and Economic Growth in Sudan: Empirical Evidence for Women’s Empowerment. *Merits*, 23, 187-209. Online at: <file:///C:/Users/USER/Downloads/merits-02-00014.pdf>

Mulumba, D., & Olema, W. M. 2009. Policy analysis report: Mapping migration in Uganda. Online at: <http://ir.must.ac.ug/xmlui/bitstream/handle/123456789/454/Deborah.pdf?sequence=1>

Naidoo, M., Chetty, V., Mnguni, N., Maddocks, S., Pefile, N., Mthethwa, F., ... & Ngubane, T. 2018. Physiotherapy clinical education at a South African university. *African Journal of Health Professions Education*, 101, 13-18. Online at: <https://journals.co.za/doi/pdf/10.7196/AJHPE.2018.v10i1.987>

Pépin, C., Aita, M., Lavallée, A., & Goudreau, J. 2022. Comparative Study of Knowledge Acquisition, Satisfaction, Self-confidence and Perceived Support in Nursing Students Experiencing Simulation Versus Clinical Placement in Perinatal Care. *Quality Advancement in Nursing Education-Avancées en formation infirmière*, 81, 3. DOI: <https://doi.org/10.17483/2368-6669.1295>. Online at: DOI: <https://doi.org/10.17483/2368-6669.1295>

Tielemans, C., de Kleijn, R., van der Valk-Bouman, E., van den Broek, S., & van der Schaaf, M. 2023. Preparing Medical and Nursing Students for Interprofessional Feedback Dialogues. *Perspectives on Medical Education*, 121, 472. DOI: 10.5334/pme.1069. Online at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10624133/pdf/pme-12-1-1069.pdf>
