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ENHANCING UNDERGRADUATE PHYSIOTHERAPY EXPERIENCE: ASSESSING LEARNING SATISFACTION, INTERPERSONAL SKILL DEVELOPMENT, AND CHARACTER GROWTH THROUGH EARLY FIELDWORK

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Abstract

Field research entails collecting data and conducting studies in real-world settings to gain beneficial knowledge. However, fieldwork presents its difficulties, such as logistical constraints, unknown variables, and the need for adaptability to acquire accurate and reliable data. The objective of this research is to analyze the experience among undergraduate physiotherapy students when exposed to early fieldwork by assessing the level of learning satisfaction, and interpersonal and character growth outcomes. This study utilized a cross-sectional study design with a single group assessment taken in July 2023. Surveys were conducted by utilizing the Field Study Learning Satisfaction Survey Questionnaire among 1st and 2nd year physiotherapy students (n=26) at Universiti Kebangsaan Malaysia (UKM). The findings demonstrate an increase in the satisfaction level, interpersonal and character growth after participating in the fieldwork program. In conclusion, this study highlights the positive impact of early fieldwork on the undergraduate physiotherapy experience, specifically in terms of learning satisfaction, interpersonal skill development, and character growth.

Keywords: Character growth; early fieldwork; interpersonal skill development; learning satisfaction; physiotherapy

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Abstrak

Kajian lapangan adalah satu aktiviti penyelidikan dan pengumpulan data di persekitaran sebenar dan mempunyai pelbagai pengetahuan bermanfaat. Walau bagaimanapun, kajian lapangan mempunyai kesulitan seperti logistik, data yang tepat dan boleh dipercayai serta lain-lain. Objektif kajian ini adalah untuk menganalisis maklum balas pelajar fisioterapi terhadap kepuasan pembelajaran, perkembangan kemahiran insaniah dan karakter selepas didedahkan kepada kerja lapangan di peringkat awal pengajian. Ini adalah kajian keratan rentas terhadap satu kumpulan tunggal pelajar pada Julai 2023. Tinjauan ini telah dijalankan menggunakan Soal Selidik Kepuasan Pembelajaran dalam Kajian Lapangan dalam kalangan pelajar fisioterapi tahun pertama dan kedua (n = 26) di Universiti Kebangsaan Malaysia (UKM).—Dapatan kajian menunjukkan peningkatan tahap kepuasan pembelajaran, perkembangan kemahiran insaniah, dan karakter. Kesimpulannya, kajian mengenai kerja lapangan ini telah memberi impak positif kepada pelajar fisioterapi, khususnya dari segi kepuasan pembelajaran, perkembangan kemahiran insaniah, dan pembangunan karakter.

Kata kunci: Perkembangan karakter; kerja lapangan awal; kemahiran insaniah; kepuasan pembelajaran; fisioterapi

1.0 INTRODUCTION

The undergraduate experience is a pivotal, indispensable, and essential phase of higher education, representing a significant transition from secondary school to higher learning study (Bush, Chambers, & Walpole, 2023; Dolan & Johnson, 2010). It encompasses academic endeavors, personal growth, and social engagement, shaping students' knowledge, skills, and character while providing the groundwork for their future academic and professional endeavors (Balva et al., 2023; Dolan & Johnson, 2010; White & Nitkin, 2014). The transition from secondary school to higher learning study is an important step in a student's life. This transition is marked by a series of obstacles and adjustments that play an important role in shaping individuals' academic and personal growth. While it represents a wonderful period of exploration and intellectual development, it is not without complications (Bezanilla et al., 2019). The shift in learning approaches is one of the most noticeable characteristics of this revolution.

Secondary education is frequently based on prescribed curricula and directed instruction, whereas undergraduate study emphasizes autonomous learning and critical thinking (Buch, Rathod, & Naik, 2021; Matthee & Turpin, 2019). Students must adjust to a more self-directed approach in which they are expected to actively seek knowledge, conduct research, and participate in academic dialogue (Khiat, 2017; Pucillo & Perez, 2023; Sosibo, 2019). This transition can be both exhilarating and intimidating as students discover the freedom to pursue their interests while simultaneously accepting

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increased responsibility for their education. In addition, self-motivation becomes critical in higher education (Ning & Downing, 2010). In contrast to secondary school, where external structures frequently demand study schedules and assignments, advanced study lays the responsibility on students to create goals, manage their time wisely, and remain motivated throughout their academic journey (Tomasik, Helbling, & Moser, 2021). This newfound independence can be both liberating and demanding since it necessitates the development of strong self-discipline and intrinsic desire.

Undergraduate physiotherapy education provides students with a solid foundation in the principles and practices of physiotherapy. Through theoretical coursework, clinical training, and experiential learning, students acquire the knowledge, practical skills, and professional competencies necessary to assess, diagnose, and treat patients with musculoskeletal, neurological, and cardiopulmonary conditions, preparing them for a rewarding career in healthcare as a physiotherapist (Jette, Macauley, & Levangie, 2020; Terry, 2022). Theory and classroom exercises are common in higher education. However, without early fieldwork or practical experiences, students may miss opportunities to apply information in real-world contexts, develop practical skills, and obtain insights into their future professions, limiting their holistic educational development (Ma & Lee, 2012; Terry, 2022).

Previous research has demonstrated advantages of undergraduate fieldwork, including the opportunity to develop cultural competency, adaptability, and resiliency in diverse healthcare contexts (Brown et al. 2022; Fedesco, Cavin, & Henares, 2020; Guerrero et al. 2015; Jernigan et al. 2016). It may also promote collaboration, problem-solving skills, and a comprehensive understanding of the multidisciplinary nature of patient care (Fedesco, Cavin, & Henares, 2020; Hwang et al. 2016).

On the positive side, undergraduate fieldwork allows students to broaden their views and explore deeper topics of interest (Fedesco, Cavin, & Henares, 2020; Irving & Sayre, 2016; O'Connell et al. 2021). This exposure allows students to think critically, challenge preconceptions, and gain a more profound grasp of complicated situations (Chew & Cerbin, 2021; Fedesco, Cavin, & Henares, 2020; Portillo et al. 2013). In addition, fieldwork enables students to implement evidence-based practice, integrate theoretical concepts, and make informed clinical decisions, thereby boosting their overall competence and confidence as future physiotherapy professionals (Brown et al. 2022; Crowe & Mackenzie, 2002; Fedesco, Cavin, & Henares, 2020).

However, fieldwork may include potential scheduling conflicts, logistical challenges, physical and emotional demands, unpredictable environments, and a limited scope of experience, necessitating careful planning, support, and adaptability to mitigate these challenges and maximize the benefits of

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fieldwork (Casale, Flicker, & Nixon, 2011; Fedesco, Cavin, & Henares, 2020; Irgil et al. 2021). In addition, undergraduates may lack the underlying information required to effectively comprehend or benefit from their early fieldwork experiences (Fedesco, Cavin, & Henares, 2020; O'Connell et al. 2021). They might struggle to understand the practical aspects of their fieldwork if they lack a solid academic foundation, limiting the depth of their learning (Fedesco, Cavin, & Henares, 2020; Pitblado & Christou, 2020; Wilson et al. 2012). Besides that, some undergraduate students may lack the emotional and psychological maturity required to deal with the obligations and pressures to participate in early research fieldwork.

This immaturity can result in inappropriate behavior or issues regulating workplace dynamics (Beddoe et al. 2023; Dolan & Johnson, 2010; Fedesco, Cavin, & Henares, 2020). Despite that, physiotherapy undergraduate students were thought to be able to survive with early fieldwork as they are trained to be patient-centered approach (Fedesco, Cavin, & Henares, 2020; Forbes et al. 2017; Irgil et al. 2021) and be able to adapt to various clinical situations (Irgil et al. 2021; Stevens et al. 2018). However, currently, there is a lack of studies to investigate the outcome of early research fieldwork among physiotherapist students. Therefore, this study is important to be conducted to determine the educational outcomes on learning satisfaction, interpersonal and character growth to provide informed evidence-based practices for teaching and learning intervention in higher education institutes.

2.0 MATERIALS AND METHODS

2.1. Design

This study utilized a cross-sectional study design with a single group assessment taken in July 2023. The questionnaires were disseminated to the 1st and 2nd year physiotherapy students in Universiti Kebangsaan Malaysia (UKM).

2.2. Participants

The study included physiotherapy undergraduate students undergoing their training at the Universiti Kebangsaan Malaysia (UKM) who were invited to participate via classroom message and digital invitation. The inclusion criteria were (1) currently a physiotherapy student, (2) not more than 2 years being study physiotherapy in UKM. Participation was anonymous, and responses did not affect the lecturer's evaluation of students' performances. The participation was voluntary basis, they could withdraw at any time during the execution of the fieldwork.

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2.3. Procedure

At the time of the study, the early fieldwork program was never introduced as a part of the program during 1st and 2nd years of undergraduate in UKM. Students were brought to the areas in Negeri Sembilan state by UKM transport to disseminate questionnaires to collect information regarding the Quality of Life (QOL) status among Negeri Sembilan Muslim residents in Kuala Pilah, Kuala Klawang, Rembau, and Jempol. The fieldwork was conducted in four series of time which took about 5 hours per fieldwork visit. The visits were assisted and supervised by the resident's representative from each district to smoothen the process of questionnaire dissemination.

The lecturers from the physiotherapy program were also involved in assisting and supervising students who participated in these fieldwork visits. A briefing regarding safety, communication procedure, and procedure to conduct the fieldwork was given by the head of the fieldwork project. Students who participated in the fieldwork were given tokens to acknowledge their contributions to the fieldwork project.

2.4. Instruments

All participants were assessed utilizing the 'Field Study Learning Satisfaction Survey' to obtain the (1) demographic data of the students, (2) character growth, (3) interpersonal skills qualities, and (3) learning satisfaction level. The outcome measure is a self-administered questionnaire, which is rated on a Likert scale and then summed to a total score ranging from highly satisfied to very less satisfied. Additionally, the respondents provided information about the style of learning either visual, auditory, kinesthetic, or reading.

2.5. Data Analysis

In line with the explorative nature of the study, demographics of participants were described first, then the level of character growth, personal qualities, and learning satisfaction level during the fieldwork program were explained later. The levels were shown in frequency, mean, and percentages of data.

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3.0 RESULTS

3.1 The Demographic Data

Following were the results and findings from the demographic characteristics that derived from the analysis of the data, Table 1.

Table 1. Demographic data of undergraduate Physiotherapy experience in early fieldwork

Demographic data	Results
Gender	
Male	13 (50%)
Female	13 (50%)
Age (years old)	Mean: 21
Races	
Malay	20 (76.9%)
Chinese	5 (19.2%)
Indian	0 (0%)
Others	1 (3.8%)
Year of Study	
1st year	18 (69.2%)
2nd year	8 (30.8%)
Prior experiences with field studies	
1st field study experiences	23 (88.5%)
2nd-time participation	1 (3.8%)
3rd participation and more	2 (7.7%)
Level of interest in the academic program	
Very interested	17 (65.4%)
Somewhat interested	7 (26.9%)
Neutral	2 (7.7%)
Preferred learning style	
Kinesthetic	16 (61.5%)
Auditory	5 (19.2%)
Visual	4 (15.4%)

The findings from Table 1 showed that there was an equal representation of male and female participants in the study. The mean age of the participants was 21 years old. Malay made up most participants (76.9 %), followed by Chinese (19.2 %), with no Indian participants. Most participants (69.2 %) were in their first year of study, and a significant amount (88.5 %) stated this was their 1st fieldwork experience. Most participants (65.4 %) expressed a high level of interest in their academic program.

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Kinesthetic learning was the preferred style for most participants (61.5 %), followed by auditory (19.2 %) and visual (15.4 %) learning preferences. This finding indicated that students were actively engaged and motivated in their chosen field of study. When students were interested in their academic program, they tend to be more enthusiastic, committed, and proactive in their learning journey (Nahadi, Firman, & Farina, 2015). However, it was important to consider other factors that may influence learning outcomes, such as teaching methods, support systems, and individual learning preferences.

3.2 The Character Growth

Below were the results of the character growth, Table 2 and Figure 1, as well as the interpersonal qualities, Figure 2, that derived from the analysis and interpretation of the data. Table 2 and Figure 1 showed the character growth whereby 61.5% of participants stated that the field studies were important in contributing to the participants' personal character development. The participants also stated the following attributes were among the most important personal traits that were positively enhanced in their character after being involved in the fieldwork program such as adaptability (73.1%), teamwork (92.3%), cultural awareness (73.1%) and communication skills (100%).

Table 2. The character growth of undergraduate Physiotherapy experience in early fieldwork

Character growth	Results
The contribution of field study toward personal character growth	
Significantly	16 (61.5%)
Non-Significantly	10 (38.5%)
Interpersonal qualities	
Resilience	11 (42.3%)
Adaptability	19 (73.1%)
Leadership	12 (46.2%)
Teamwork	24 (92.3%)
Problem-solving	14 (53.8%)
Communication	26 (100%)
Empathy	14 (53.8%)
Cultural awareness	19 (73.1%)

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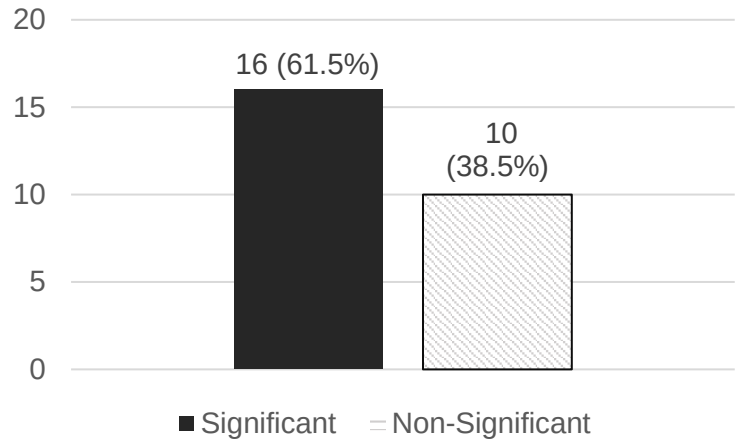

Figure 1. The character growth of undergraduate Physiotherapy experience in early fieldwork

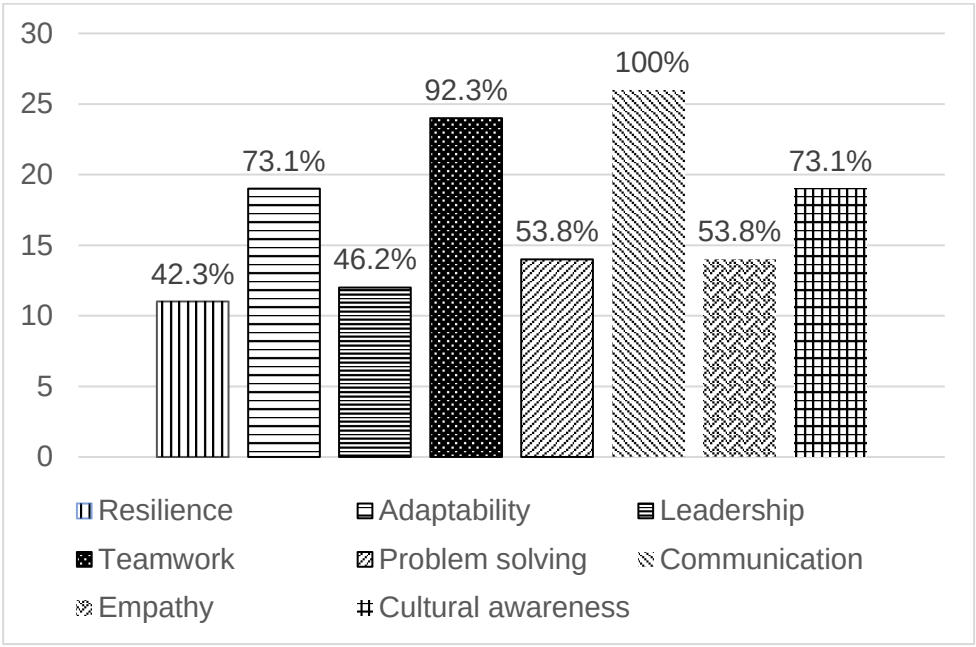

Figure 2. The interpersonal qualities of undergraduate Physiotherapy experience in early fieldwork

Through hands-on experiences and direct engagement with real-world contexts, participants acquire the essential professional skills of adaptability, collaboration, cultural awareness, and communication (Hepple et al., 2017). However, it is essential to reflect on the study's limitations. The findings are based on self-reported data, which may be biased or inaccurate. In addition, the sample size may influence the generalizability of the study's findings to a larger population. Additional research with larger and more diverse samples would provide a more complete understanding of the character development caused by fieldwork experiences.

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3.3 Learning Satisfaction

The outcomes of the data analysis included the learning satisfaction level, Table 3, overall experience during the field study, Figure 3, and the achievement of the learning objective, Figure 4.

Table 3. Learning satisfaction level of undergraduate Physiotherapy experience in early fieldwork

Learning Satisfaction Level	Results
Overall experience during the field study	
Very satisfied	16 (61.5%)
Satisfied	10 (38.5%)
Neutral	0 (0%)
Dissatisfied	0 (0%)
Very dissatisfied	0 (0%)
The achievement of learning objectives	
Fully achieved	11 (42.3%)
Partially achieved	19 (73.1%)
Not achieved	12 (46.2%)

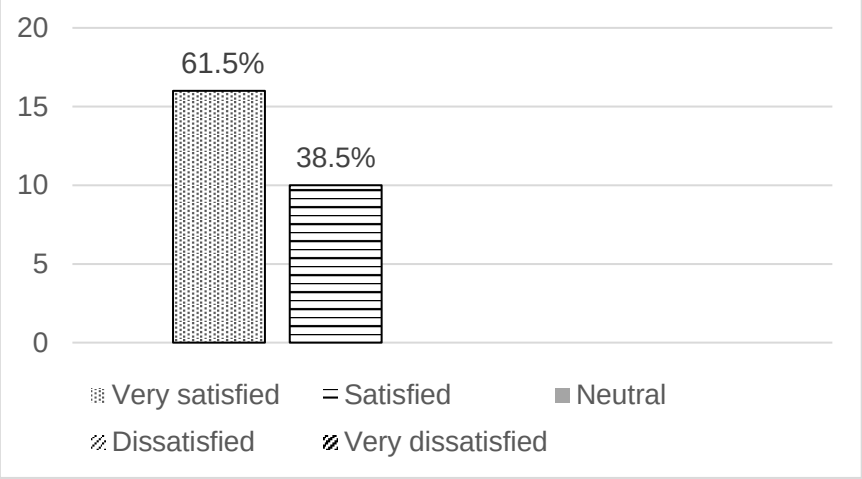

Figure 3. Overall experience during the field study

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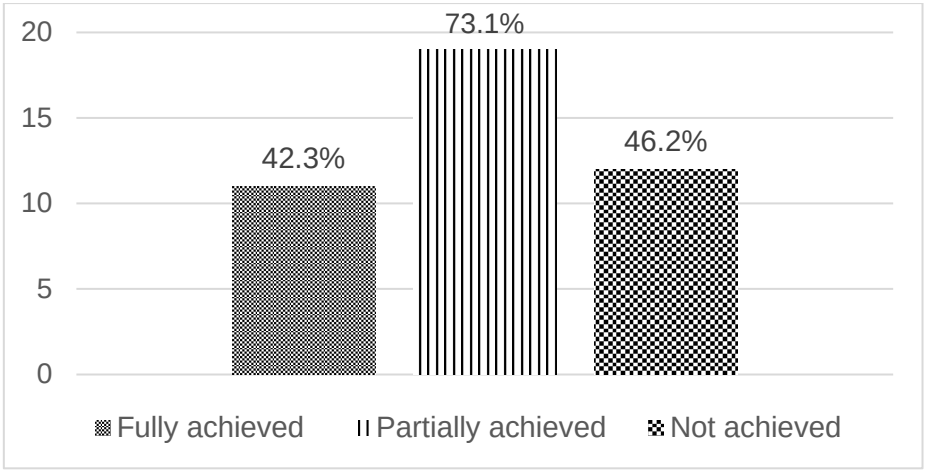

Figure 4. The achievement of the learning objectives

Table 3 and Figure 3 showed that 61.5% of participants said they were extremely satisfied with the fieldwork. About 42.3% of respondents felt their learning objectives had been entirely attained, while 73.1% thought they had been partially attained. Figure 4 showed that 73.1% of participants felt partially achieved the learning objectives compared to fully achieved with 42.3% and not achieved with 46.2%. The high proportion of respondents who only partially accomplished their learning objectives suggested that, while they made progress, there may be room for improvement or further development.

This finding emphasized the significance of ongoing evaluation and modification of fieldwork programs to ensure optimal alignment between learning objectives and participant outcomes. It also emphasized the importance of ongoing support, guidance, and feedback to enhance the learning experience and maximize goal achievement (Daumiller et al., 2021). Notably, individual perceptions of objective achievement may vary based on factors such as prior knowledge, abilities, and expectations (Day et al., 2010). In addition, self-reported data on satisfaction and objective attainment may be susceptible to personal biases or over- or underestimation of actual progress (Mętel et al., 2019).

4.0 DISCUSSION

The purpose of the present study was to evaluate the effect of early fieldwork on the undergraduate physiotherapy experience, with a concentration on learning satisfaction, interpersonal skill development, and character development. The findings revealed positive outcomes in all three areas, emphasizing the significance of incorporating fieldwork into the physiotherapy curriculum.

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4.1 Learning Satisfaction:

During the fieldwork program, most participants reported high levels of learning satisfaction. This indicates that the students valued the fieldwork experience and that it contributed to their overall academic engagement and enthusiasm (Hodgetts et al., 2007; Scott, Humphries, & Henri, 2019). When students are actively engaged in real-world settings, they can implement theoretical knowledge in practice, which improves their comprehension and learning motivation (Arnold et al., 2023; Fineout-Overholt et al., 2010). Positive learning experiences during early fieldwork may result in increased academic success, retention, and subject appreciation (Arnold et al., 2023; Nundy, 1999; Piumatti et al., 2021).

As physiotherapists work closely with diverse patient populations, healthcare professionals, and communities, these skills are essential. Fieldwork exposed students to a variety of challenging situations that required them to collaborate, communicate effectively, and be empathetic toward the requirements of others (Crowe & Mackenzie, 2002; Fedesco, Cavin, & Henares, 2020; Song, 2017). These interpersonal skills are essential for establishing rapport with patients, developing effective treatment plans, and providing holistic care to patients with varying backgrounds and preferences.

4.2 Character Development:

The findings demonstrated that early fieldwork considerably contributed to the undergraduate physiotherapy students' character development. Participants had opportunities to develop resiliency, leadership, problem-solving skills, and adaptability through their fieldwork experience. It found that engaging in real-world settings with unknown variables and challenges promoted personal development and a deeper understanding of their capabilities (Fedesco, Cavin, & Henares, 2020; Fineout-Overholt et al., 2010). Due to the complexity and unpredictability of patient circumstances, these traits are essential for physiotherapists in their professional practice.

4.3 Implications for Undergraduate Physiotherapy Education:

The positive results of this study indicate that incorporating early fieldwork into the physiotherapy curriculum can improve the overall undergraduate experience. Early exposure to the real world enables students to acquire practical skills, cultivate professional competencies, and receive insight into their future profession (Nundy, 1999; O'Connell et al., 2021). Therefore, it is recommended that physiotherapy programs incorporate opportunities for early fieldwork as a fundamental component of the curriculum. This can be accomplished through partnerships with healthcare institutions, community organizations, and research initiatives that offer students meaningful fieldwork experiences.

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5.0 CONCLUSION

In conclusion, early fieldwork is a valuable component of the physiotherapy undergraduate curriculum. The findings of the study highlighted its positive effects on learning satisfaction, interpersonal skill development, and character development. Integrating early fieldwork into the curriculum can enhance holistic development of physiotherapy students, better preparing them for careers as competent, compassionate professionals. As physiotherapy continues to evolve and confronts new challenges, it becomes increasingly important to provide students with early exposure to real-world experiences to prepare them to excel as future healthcare professionals. The study demonstrated the importance of early fieldwork in enhancing the undergraduate physiotherapy experience, particularly in learning satisfaction, interpersonal skills, and character development. More studies should be conducted to determine the long-term effects of early fieldwork on learning satisfaction levels as well as interpersonal and character growth.

6.0 LIMITATIONS AND FUTURE RESEARCH:

While the study provided valuable insights into the effects of early fieldwork, it is important to recognize its limitations. Due to the limited sample size, the findings of this study may not apply to a larger population of physiotherapy students. Future research with a larger and more diverse sample size could strengthen the study's findings and provide a deeper understanding of the effects of early fieldwork.

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