Journal of Creative Practices in Language Learning and Teaching (CPLT)
Volume 12, Number 2, 2024

Exploring Optometry Students' Perspectives on Satisfaction within the Clinical Learning Environment

Noor Halilah Buari*
noorhalilah@uitm.edu.my
Centre for Optometry Studies, Faculty of Health Science
Universiti Teknologi MARA, Selangor, Malaysia

Muhammad Akram Zainal-Abidin
akram_zaba@yahoo.com
Ban UK Optometrist Berjaya Times Square
Kuala Lumpur, Malaysia

Corresponding author*

Received: 4 April 2024
Accepted: 17 July 2024
Published: 30 September 2024

CITE THIS ARTICLE:

Buari, N. H., & Zainal-Abidin, M. A. (2024). Exploring Optometry Students' Perspectives on Satisfaction within the Clinical Learning Environment. *Journal of Creative Practices in Language Learning and Teaching*, *12*(2), 116-124. 10.24191/cplt.v12i2.3625

ABSTRACT
Creating an optimal clinical learning environment for health sciences students is crucial to fostering effective learning and skill acquisition. This study investigated optometry students' perceptions of their clinical learning environment and explored the relationship between these perceptions and their satisfaction with the clinical learning environment. A cross-sectional study was conducted with 33 optometry students engaged in clinical training. To assess their perspectives, students completed the Clinical Learning Environment Inventory (CLEI), which comprises six sub-scales: personalisation, student involvement, task orientation, teaching innovation, individualisation, and satisfaction. Using an online survey, students rated their responses on a Likert scale ranging from "strongly agree" (5) to "strongly disagree" (1). The mean CLEI scores were as follows: personalisation (20.58±2.60), student involvement (23.97±2.23), task orientation (22.76±2.22), teaching innovation (23.03±3.14), individualisation (21.61±2.99), and satisfaction (21.52±2.00). Moderate, statistically significant correlations were found between clinical learning satisfaction and the sub-scales of task orientation (r=0.464, p=0.006), teaching innovation (r=0.475, p=0.005), and individualisation (r=0.416, p=0.016). In conclusion, appropriate clinical activities, innovative clinical teaching, and consideration of student

perspectives lead to higher satisfaction in optometry clinical learning. These findings highlight the importance of establishing an optimal clinical learning environment to improve the clinical skill development of students.

Keywords: clinical learning, teaching, students, satisfaction, university

INTRODUCTION

The clinical learning environment, often referred to as an interrelated network of institutions in clinical learning or training settings that can influence clinical learning outcomes, is a crucial element of healthcare education (Dunn & Hansford, 1997). Clinical learning links classroom learning with real-world practice and is therefore critical to healthcare education. It gives students the hands-on experience they need to become confident healthcare providers. Therefore, the learning approach in clinical settings should be unique compared to traditional classroom teaching in terms of achieving learning outcomes.

In the clinical training of optometry, students undergo clinical training in the last 3 or 4 semesters of their studies. It integrates theory with practical and patient-centred learning. Optometry students interact directly with patients, perform eye examinations, diagnose vision problems, and provide treatment and management options. Clinical education takes place under the supervision of experienced optometrists, often referred to as preceptors or clinical instructors. Students are evaluated through clinical assessments, practical examinations, and interactions with patients. These assessments help determine their clinical competence and readiness for independent practice, which includes professionalism and ethical development.

The domain of clinical learning encompasses several aspects, including the clinical learning environment, satisfaction with clinical education, and performance. This domain is influenced by a complex interaction of elements. Flott and Linden (2016) have described four basic attributes of the clinical learning environment, including the physical spatial dimensions, psychosocial and interactional dynamics, organisational culture, and teaching and learning components. These attributes have a recognisable impact on the educational experiences and outcomes of clinical students. As Moh'd Alraja (2011) explained, cultivating a positive learning culture and environment in clinical settings reinforces and sustains high quality nursing standards in nursing students. Chan (2002) also highlighted the importance of the personalization domain, which emphasises opportunities for nursing students to interact with clinical instructors and healthcare professionals, with the students' welfare and health at the forefront. In the crucible of clinical placements, where students are trained in hospitals, feelings of vulnerability are common. Students genuinely seek respect, support, and motivation from their clinical supervisors and clinicians during this crucial part of clinical education, which greatly influences their clinical learning experiences.

Assessment of student satisfaction in clinical sessions is of paramount importance as it is a critical determinant of student engagement in clinical education. This aspect of healthcare education has attracted much attention due to its profound impact on overall academic performance and scholarly development, especially in nursing (Brown et al., 2011; Ekstedt et al., 2019;

Lovecchio et al., 2015; Papathanasiou et al., 2014; Woo & Li, 2020). There was a critical need for clinical learning environments that aligned with student satisfaction and expectations. Autonomous supervision, interpersonal support, task requirements, role clarity, learning opportunities, work variety, and clinical facilities are key considerations for medical students' clinical teaching and learning (Rezaee & Ebrahimi, 2013). Furthermore, the impact of clinical field placement on student satisfaction and their clinical learning environment is undeniably significant. D'Souza et al. (2015) found that students place high value on positive attributes within the clinical learning environment, including constructive supervision, the cultivation of interpersonal relationships, and meaningful interactions with clinical educators and staff. In this context, providing constructive feedback on clinical performance and improving overall clinical satisfaction emerges as central pillars that facilitate effective pedagogical principles in clinical placements (D'Souza et al., 2015).

Several studies have highlighted the essential role of clinical supervisors in enhancing student satisfaction in clinical learning, especially through innovative teaching approaches (Brown et al., 2011; Ekstedt et al., 2019; Mbakaya et al., 2020). In addition, the provision of clear clinical teaching instructions, adequate task arrangements and well-structured clinical schedules has been associated with higher satisfaction in clinical teaching (Lovecchio et al., 2015; Papathanasiou et al., 2014). In addition, involving students in decision-making within clinical practice and providing them with opportunities to exercise autonomy based on their abilities and interests has been found to make a notable contribution to satisfaction with clinical learning (Neufeld & Malin, 2019; Woo & Li, 2020).

Despite the recognized importance of the clinical learning environment in healthcare education, often explored in nursing or medical education, there remains a lack of in-depth knowledge, particularly in optometry. This gap relates to the unique experiences and perceptions of optometry students during this critical phase of their education, although student satisfaction during clinical teaching and learning and its impact on academic performance have been recognized. Therefore, this study aims to explore optometry students' perceptions of the clinical learning environment and its correlations with other factors to perhaps provide insights to improve the educational experience for future

MATERIALS AND METHOD

This study chose a cross-sectional survey with 33 participants, of whom 29 (87.9%) were female and 4 (12.1%) were male. The majority of participants were between 23 and 27 years old. Participants were recruited through a purposive sampling of optometry students. Participants had to be fourth-year optometry students who were actively enrolled in clinical training in order to participate in the study. However, participants enrolled in postgraduate programmes were not included in the study. The Declaration of Helsinki was adhered to and the study complied with ethical requirements. The study was approved by the university's research ethics committee (REC/480/18).

Instruments

The Clinical Learning Environment Inventory (CLEI) was used in the study to assess students' perceptions of their clinical placements and experiences. The 42 questions of this questionnaire, developed and validated by Chan in 2002, were divided into six subscales, each with seven items (Chan, 2002; Dunn & Hansford, 1997). These subscales were described as follows:

- **Personalisation**: This subscale focuses on facilitating individual students' engagement with clinical teachers and clinicians, taking into account their personal well-being.
- **Student Involvement**: This subscale measures student engagement and attentiveness in clinical or hospital ward activities.
- **Task Orientation**: This subscale evaluates how well ward or clinical activities are clear and well-organized.
- **Teaching Innovation**: This subscale assesses how clinical educators and clinicians implement novel, engaging, and productive clinical or ward experiences, teaching techniques, learning activities, and patient assignments.
- **Individualism**: This subscale examines the degree to which students are permitted to make decisions and are treated differently based on their abilities or interests.
- **Satisfaction**: This subscale assesses the degree of enjoyment experienced by students during their clinical field placement.

Each participant's CLEI subscale scores were calculated to create a profile reflecting their clinical experience. As recommended by Chan, the satisfaction subscale was developed as an outcome measure to assess students' overall satisfaction with their clinical placements (Chan, 2002; 2004). Each CLEI subscale was rated using a five-point Likert scale, with responses ranging from 5 (strongly agree) to 1 (strongly disagree). The development of the CLEI followed a person-environment interaction framework consisting of two components: the 'actual' and the 'preferred' part. The 'actual' component gauged participants' perceptions of the real clinical practical work environment. In contrast, the 'preferred' component focused on goals and value orientation. However, in this study, satisfaction and perspective were examined to explore the actual components of the clinical practicum environment among optometry students.

Procedures

The self-administered questionnaires were distributed online via Google Forms. A unique survey link was generated and distributed to potential participants via various messaging applications such as WhatsApp or Telegram, as well as by email. The questionnaires provided participants with an overview of the context and objectives of the study. Strict confidentiality and anonymity for all participants were ensured throughout the study.

These questionnaires covered two aspects, including student demographics and CLEI. The online survey took approximately 20 minutes to complete. First, the survey indicated that participants should check their informed consent to participate in this study. Then each participant had to provide demographic information. Participants then answered the six subscales of the Clinical Learning Environment Inventory.

Data analysis

The Statistical Package for the Social Sciences (SPSS) version 27 was used for data analysis. Scores for each CLEI subscale were calculated to create a comprehensive CLEI profile reflecting participants' clinical experiences. The mean and standard deviation of the survey data were calculated. Using the Shapiro-Wilk normality test, the data were found to be normally distributed. Therefore, Pearson correlation coefficients (r) were used to examine possible relationships between student satisfaction and other subscales within the clinical learning environment.

RESULTS

Table 1 presents the outcomes related to the six subscales of the clinical learning environment. Notably, the highest score was observed in the student involvement subscale, followed closely by teaching innovation. Conversely, the personalization subscale received the lowest rating among the CLEI subscales. On average, the students' satisfaction score was 21.52.

Table 1. Clinical learning environment inventory scores

Subscales	Scores	
	M	*1 SD*
Personalization	20.58	2.60
Student involvement	23.97	2.23
Task orientation	22.76	2.22
Teaching innovation	23.03	3.14
Individualism	21.61	2.99
Satisfaction	21.52	2.00

M mean, *1 SD* standard deviation

Figure 1 presents scatter plots illustrating the correlations between students' satisfaction and other subscales within the CLEI. The satisfaction scores serve as a valuable metric for gauging the level of enjoyment experienced by students during their clinical field placements. Our findings revealed significant moderate correlations between satisfaction and three of the CLEI subscales: task orientation ($r = 0.464$, $p = 0.006$), teaching innovation ($r = 0.475$, $p = 0.005$), and individualism ($r = 0.416$, $p = 0.016$). In contrast, personalization ($r = 0.242$, $p = 0.176$) and student involvement ($r = 0.312$, $p = 0.077$) did not show significant correlations with satisfaction in the CLEI.

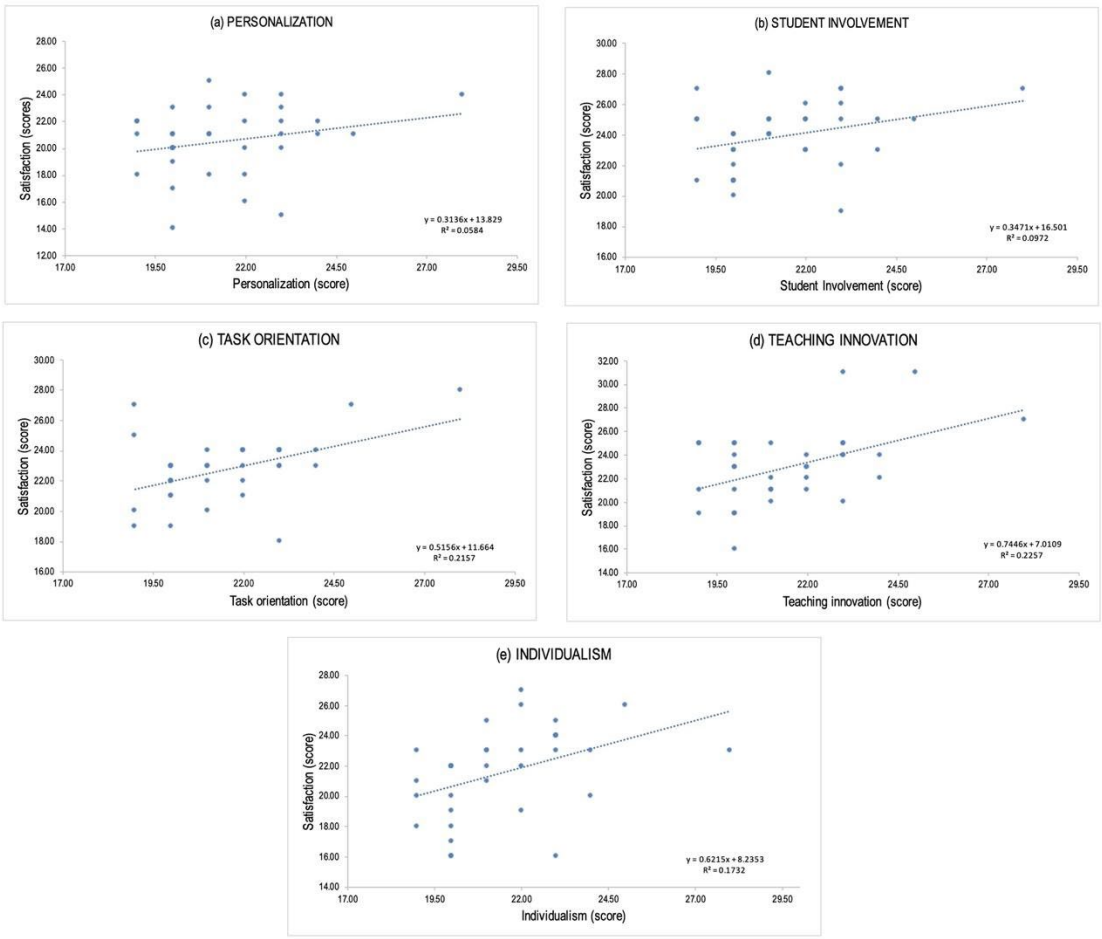

Figure 1. The correlation between satisfaction and each subscale of the clinical learning environment. (a) personalization (b) student involvement (c) teaching innovation (d) task orientation (e) individualism

DISCUSSIONS

This study examined optometry students' satisfaction during their clinical placements in clinical learning and investigated its relationship with personalization, student involvement, task orientation, teaching innovation, and individualism using the CLEI instrument.

The discovery of a significant correlation between satisfaction in the clinical learning environment and the task orientation subscale underscores the central role of clear, organized, and purposeful tasks in students' overall satisfaction during their optometry clinical placements. This finding is supported by previous studies examining nursing students in medical-surgical training in community hospitals (Lovecchio et al., 2015; Papathanasiou et al., 2014). Task orientation was also found to be significantly correlated and a strong predictor of nursing students' satisfaction with clinical learning. The findings emphasise the importance of providing students with clearly defined expectations and instructions, fostering a culture of productivity and efficient functioning, and ensuring that clinical activities are carefully planned and structured. This is because good task

orientation in clinical learning could reduce student anxiety, particularly for those in vulnerable clinical roles (Chan, 2002). Such arrangements were highly appreciated by the students as they enhanced their understanding and engagement.

Another aspect that contributed significantly to optometry students' satisfaction with the clinical learning environment was teaching innovation. Previous studies concurred that satisfaction was correlated with most aspects of CLEI, including teaching innovation in health sciences or nursing students (Brown et al., 2011; Ekstedt et al., 2019; Mbakaya et al., 2020). The results point the important role of innovative teaching approaches in improving the educational experience. Potentially unsatisfactory is the sense that fresh ideas are rarely taken up or different teaching approaches are rarely utilised. Innovative teaching approaches to clinical learning can increase student satisfaction by promoting engagement, accommodating diverse learning styles, supporting active learning, emphasising connection to practise, encouraging critical thinking, creating a positive learning environment, enhancing self-efficacy, and responding to student feedback. Taken together, these elements lead to a more satisfying and meaningful learning experience for optometry students. Collaboration with supervisors and exposure to multiple supervisors could also contribute to a more fulfilling and enriching educational experience (Courtney-Pratt et al., 2012; Ekstedt et al., 2019).

The significant correlation between student satisfaction with clinical learning and the individualism subscale underscores the importance of providing students with opportunities for autonomy and individual experiences as part of their clinical placements. The result highlights the importance of fostering an environment within clinical placements that respects students' individuality, allows them flexibility and empowers them to take control of their learning experiences. Students appreciate being seen as unique individuals with their own strengths and contributions during clinical learning, which can increase their overall satisfaction (Neufeld & Malin, 2019). When preceptors support student autonomy and individualization, this can lead to positive relationships between students and preceptors. Such relationships are often associated with higher satisfaction as students feel valued and understood. In contrast to the present study, the nursing students had a lower score for "individualization'," suggesting that this was not granted despite their desire for a degree of autonomy. (Woo & Li, 2020). Promoting independence and individualization can contribute to higher student satisfaction and a more positive and enriching clinical learning environment, which in turn improves overall academic performance (Papathanasiou et al., 2014).

This study has several limitations. First, the sample size was relatively small due to the limited availability of eligible optometry students who met the study criteria. The generalizability of the results is limited by the small sample size, so no definitive conclusions can be drawn. Secondly, the correlation found did not establish a causal relationship between these variables and student satisfaction. The addition of qualitative measurement could provide more insight into this area.

CONCLUSION

In conclusion, satisfaction in the optometry clinical learning environment correlates with task orientation, teaching innovation, and individualism. These findings could create a conducive

atmosphere for the robust development of students' clinical skills. The findings have the potential to reshape clinical teaching practice in optometry to focus on creating optimal learning environments that prioritize student satisfaction, motivation, and skill development. By implementing these findings, clinical teaching can become more effective, engaging and tailored to the needs of individual students, ultimately leading to highly skilled and satisfied optometrists.

REFERENCES

Brown, T., Williams, B., McKenna, L., Palermo, C., McCall, L., Roller, L., Hewitt, L., Molloy, L., Baird, M., & Aldabah, L. (2011). Practice education learning environments: the mismatch between perceived and preferred expectations of undergraduate health science students. *Nurse Education Today*, *31*(8), e22–e28. https://doi.org/10.1016/j.nedt.2010.11.013

Chan, D. S. K. (2002). Associations between student learning outcomes from their clinical placement and their perceptions of the social climate of the clinical learning environment. *International Journal of Nursing Studies*, *39*(5), 517–524. https://doi.org/10.1016/S0020-7489(01)00057-8

Chan, D. S. K. (2004). The relationship between student learning outcomes from their clinical placement and their perceptions of the social climate of the clinical learning environment. *Contemporary Nurse*, *17*(1–2), 149–158. https://doi.org/10.5172/conu.17.1-2.149

Courtney-Pratt, H., FitzGerald, M., Ford, K., Marsden, K., & Marlow, A. (2012). Quality clinical placements for undergraduate nursing students: A cross-sectional survey of undergraduates and supervising nurses. *Journal of Advanced Nursing*, *68*(6), 1380–1390. https://doi.org/10.1111/j.1365-2648.2011.05851.x

D'Souza, M. S., Karkada, S. N., Parahoo, K., & Venkatesaperumal, R. (2015). Perception of and satisfaction with the clinical learning environment among nursing students. *Nurse Education Today*, *35*(6), 833–840. https://doi.org/10.1016/j.nedt.2015.02.005

Dunn, S. V., & Hansford, B. (1997). Undergraduate nursing students' perceptions of their clinical learning environment. *Journal of Advanced Nursing*, *25*(6), 1299–1306. https://doi.org/10.1046/j.1365-2648.1997.19970251299.x

Ekstedt, M., Lindblad, M., & Löfmark, A. (2019). Nursing students' perception of the clinical learning environment and supervision in relation to two different supervision models – a comparative cross-sectional study. *BMC Nursing*, *18*, 49. https://doi.org/10.1186/s12912-019-0375-6

Flott, E. A., & Linden, L. (2016). The clinical learning environment in nursing education: A concept analysis. *Journal of Advanced Nursing*, *72*(3), 501–513. https://doi.org/10.1111/jan.12861

Lovecchio, C. P., DiMattio, M. J. K., & Hudacek, S. (2015). Predictors of undergraduate nursing student satisfaction with clinical learning environment: A secondary analysis. *Nursing Education Perspectives*, *36*(4), 252–254. https://doi.org/10.5480/13-1266

Mbakaya, B. C., Kalembo, F. W., Zgambo, M., Konyani, A., Lungu, F., Tveit, B., Kaasen, A., Simango, M., & Bvumbwe, T. (2020). Nursing and midwifery students' experiences and perception of their clinical learning environment in Malawi: A mixed-method study. *BMC Nursing*, *19*, 87. https://doi.org/10.1186/s12912-020-00480-4

Moh'd Alraja, A. A. (2011). *Undergraduate nursing students' perceptions of the psychosocial characteristics of the clinical learning environment during their clinical placements*. The University of Manitoba.

Neufeld, A., & Malin, G. (2019). Exploring the relationship between medical student basic psychological need satisfaction, resilience, and well-being: A quantitative study. *BMC Medical Education*, *19*(1), 405. https://doi.org/10.1186/s12909-019-1847-9

Papathanasiou, I. V., Tsaras, K., & Sarafis, P. (2014). Views and perceptions of nursing students on their clinical learning environment: Teaching and learning. *Nurse Education Today*, *34*(1), 57–60. https://doi.org/10.1016/j.nedt.2013.02.007

Rezaee, R., & Ebrahimi, S. (2013). Clinical learning environment at Shiraz Medical School. *Acta Medica Iranica, 51*(1), 62–65. https://acta.tums.ac.ir/index.php/acta/article/view/4018

Woo, M. W. J., & Li, W. (2020). Nursing students' views and satisfaction of their clinical learning environment in Singapore. *Nursing Open*, *7*(6), 1909–1919. https://doi.org/10.1002/nop2.581

Conflict of Interest

The authors affirmed that there is no conflict of interest related to the research, authorship, or publishing of this article.

Authors' Contributions

Author1 contributed to the research concept, analysed the data, prepared the literature review, and wrote the whole article. Author2 conducted the fieldwork, did the data entry and prepared the manuscript draft.

About the Authors

	Dr Noor Halilah Buari is a senior lecturer in the Faculty of Health Sciences, UiTM. Holding a doctoral degree in Optometry, her scholarly pursuits are primarily directed towards areas of eye & vision, reading rehabilitation, and optometry education.
	Muhammad Akram Zainal-Abidin, who holds a Bachelor of Optometry (Hons.), is currently working as an optometrist at UK Ban Optometrist. He began his professional career after graduating in 2019, demonstrating a strong dedication to the area. He has a strong interest in optometry education.