Students' Experiences On Occupational Therapy Clinical Placement: A Narrative Review (Pengalaman Penempatan Klinikal Pelajar Terapi Carakerja: Satu Ulasan Naratif)

# DZALANI HARUN\*, AIMI NAJIHAH ABDUL RAZAK, HANIF FARHAN MOHD RASDI

### **ABSTRACT**

Clinical placement practice is the most significant part of occupational therapy education. It is a place where students can observe and experience how theory and practical understanding are helpful in the real world. This review aims to identify the common experiences of occupational therapy students during their clinical placement. Findings of this study can provide a better understanding of student's experiences and improve the current clinical placement practice. Methods: This is a narrative review study. Literature searches on English language articles only were conducted on relevant databases, including EBSCOhost, Academic Search Complete, Academic Search Premier, Education Resources Information Center (ERIC) and MEDLINE within the year 2007 until 2018. The final numbers of selected studies were 11. Results and Discussion: Three themes emerged from this review: (1) skills developed during clinical placement refers to students' understanding of occupational therapy role and ability to integrate academic knowledge into practical skill and to develop clinical core skills, (2) the supervisor's role during clinical placement, which describes the responsibility of supervisors to establish the student-supervisor relationship, provide feedback to students, and shape students' attitudes and (3) the challenges that arise during clinical placement, which refer to issues faced by the students during their clinical placement. Conclusion: Students have gained valuable experiences and learning opportunities that directly impacted their professional training. The specific features of clinical placement, including theoretical knowledge, practical skills, clinical reasoning, communication skills and interaction with supervisors and peers, were the definite aspects influencing students' essential competencies.

Keywords: students' experiences, clinical placement and occupational therapy.

### **ABSTRAK**

Penempatan klinikal merupakan satu bahagian penting dalam pengajian terapi carakerja. Ia merupakan satu tempat yang memberi peluang kepada pelajar untuk memerhati dan mengalami bagaimana pemahaman konsep teori dan praktikal dapat diguna pakai di dalam dunia sebenar. Tujuan ulasan ini adalah untuk mengenalpasti pengalaman yang kebiasaannya dilalui oleh pelajar terapi carakerja semasa mereka menjalani latihan penempatan klinikal. Dapatan ulasan akan dapat menyediakan kefahaman tentang pengalaman mereka untuk membantu menambahbaik penempatan klinikal sedia ada. Kaedah: Ini adalah kajian ulasan naratif. Carian literatur ke atas artikel Bahasa Inggeris sahaja telah dijalankan keatas pangkalan data yang releven termasuk EBSCOhost, Academic Search Complete, Academic Search Premier, Education Resources Information Center (ERIC) and MEDLINE di antara tahun 2007 hingga 2018. Jumlah akhir kajian yang dipilih adalah 11. Hasil dan Perbincangan: Tiga tema telah timbul dari ulasan ini; (1) kemahiran yang terbentuk semasa penempatan klinikal yang merujuk kepada kefahaman pelajar terhadap peranan terapi carakerja dan kebolehan mengintegrasi pengetahuan akademik ke dalam kemahiran praktikal serta membangunkan asas kemahiran klinikal, (2) peranan penyelia semasa penempatan klinikal, yang merujuk kepada tanggungjawab penyelia untuk mewujudkan hubungan antara pelajar dan penyelia, menyediakan maklumbalas kepada pelajar, dan membentuk sikap pelajar, dan (3) cabaran yang timbul semasa penempatan klinikal, yang merujuk kepada isu-isu yang dihadapi oleh pelajar sewaktu penempatan klinikal. Kesimpulan: Pelajar telah mendapat pengalaman yang tidak ternilai dan peluang pembelajaran yang memberi impak kepada latihan professional mereka. Ciri-ciri spesifik penempatan klinikal seperti pengetahuan teori, kemahiran praktikal, penakulan klinikal, kemahiran komunikasi dan interaksi bersama penyelia dan rakan sebaya merupakan aspek kukuh yang mempengaruhi kompetensi utama pelajar.

Kata Kunci: Pengalaman pelajar, penempatan klinikal, dan terapi carakerja.

### **INTRODUCTION**

The most significant part of occupational therapy education is clinical placement practice. According to Crowe and Mackenzie (2002), clinical placement has been acknowledged as the most prominent area to influence career decisions for the practice areas among students. Placements provide a favourable circumstance for students to learn through integrating theoretical understanding and practical competence (Rodger et al. 2008). Students are also allowed to observe how theory and practical understanding can be helpful in the real world (Yorke & Thomas 2003).

Students should spend a minimum of 1000 hours for clinical placement (Malaysian Occupational Therapy Association 2016; World Federation of Occupational Therapists 2016). However, no specific regulations on the ideal placement format should be included within a curricular program (Emslie 2012; Mulholland & Derdall 2007). Therefore, each university will design and implement its own educational and fieldwork curriculum to fulfil the criteria of requirements above (Emslie 2012). It is suggested to provide placement early in a curriculum for students to improve their basic understanding of the coursework, enhance their inspiration to learn, and help in their career choice confirmation (Mulholland & Derdall 2007).

In Malaysia, the Malaysian Qualifications Agency (2016) has provided guidelines for curriculum development and minimum level of acceptable practices, covering all education levels in medical and health sciences. Minimum graduating credits for diploma ranges between 90 and 105, with a minimum of 3 years program, meanwhile, for bachelor's degree student ranges between 120 and 145 credits, respectively. Upon completing the occupational therapy program, students can spend a minimum of 1000 hours (25 credits where one credit=40 hour of training). Currently, the required hours for an occupational therapy diploma student in industrial training is 28-35 credits, whereas a bachelor's degree requires 30-44 credits.

The rationale of clinical placement is to provide the students with excellent and competent learning experiences with thorough learning opportunities (Fieldhouse & Fedden 2009; Yu et al. 2018). Students undergo their practical placement in various settings such as in state-operated institutions such as hospitals and schools, mental health and physical disability services, nursing/old age care homes, and community in non-governmental organizations (NGOs) (Clarke 2012; Emslie 2012; Yu et al. 2018). Students should be exposed to different placement areas to acquire a wide

range of experience (Emslie 2012).

The duration of clinical placement must be long enough to enable students to establish their professional relationships, know the site's arrangement, and be familiar with the settings (Mulholland & Derdall 2007). The placement periods are generally between two to 12 weeks or five to seven weeks, especially for students in their third and fourth years of study (Clarke 2012; Emslie 2012). For students in their first year, early placement must be long enough to introduce them to practice and to encounter fixed learning objectives (Mulholland & Derdall 2007).

During clinical placement, direct supervision of a qualified occupational therapist (OT) is required for students to perform their practical's sessions, especially students in their first, second and third years of studies. Even so, fourth-year students are allowed to work in the absence of registered OT but have to be in the presence of registered health professionals. Registered OT, however, should guide on an ongoing basis for students (Emslie 2012).

Clinical placement is useful in creating a conducive learning environment to support students, appropriately guide them, prepare them when entering the placement area, and adapt to the environment (Kirke et al. 2007; Rezaee et al. 2014; Rodger et al. 2011). Clinical placement is responsive to the changing environment of the practice area. Students able to achieve positive outcomes in multiple client bases with a variety of workforce command that are priceless for their learning experiences (Yu et al. 2018).

Eventually, Brzykcy et al. (2016) outline that professional personality as an OT will evolve in the students, concentrating their opinions and decisions. Future OT will attain better skills through fieldwork training experiences by applying evidence-based interventions to achieve the occupational needs of different clients (Brzykcy et al. 2016). Clinical placement enables the students to observe and communicate with people who have a similar degree of qualification and work in the same area (Willcoxson et al. 2011). Reasonable prediction and career options can be formed through early work placement.

The definition of experience is events that have been experienced and can be disclosed by submitting or displaying an event or experience (Manualang, 1984). Next, clinical placement is defined as an authorized block of time (hours) in which students attend a clinical setting for a structured clinical experience as part of a specific unit (Thorogood & Halls 2013).

This review's primary aim is to identify the common experiences of occupational therapy students during their clinical placement. The finding of this study is essential because knowledge and understanding of the student's clinical placement experience could help to improve the current clinical placement practice, particularly in Malaysia. Good clinical placement experiences are critical because the fieldwork education can give the students favourable circumstances to develop support, management skill and guidance in practical settings while including the principle of evidence-based practice and client-centred care (Brzykcy et al. (2016).

### **METHOD**

For this study, literature was searched through databases including EBSCOhost, Academic Search Complete,

Academic Search Premier, Education Resources Information Center (ERIC) and MEDLINE. The literature searches within the year range of 2007 until 2018 using the keywords of "students' experiences", "clinical placement" and "occupational therapy". Any additional studies were searched through references of articles that were retrieved. The title or abstracts of journals and articles specifically related to the topic of interest were retrieved for review, and duplicates were removed. Studies published in a language other than English were excluded from this review. The flow chart of the article selection is shown in Figure 1.

Studies that met the inclusion criteria of the following theme: skill developed during clinical placement, supervisor's role in clinical placement and challenges that arose.

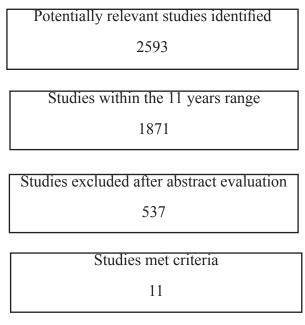


FIGURE 1. Flowchart of article selection

A total of 11 studies assessed consisted of Clarke (2012), Clarke et al. (2014), Emslie (2012), Ingwersen et al. (2017), Lew et al. (2007), Mulholland & Derdall (2007), Rathgeber (2014), Rezaee et al. (2014), Rodger et al. (2011), Towns & Ashby (2014) and Yu et al. (2018).

### RESULTS AND DISCUSSION

The final numbers of selected studies were 11. Table 1 shows the key findings obtained from the studies from the literature review. Three main themes emerged from the data; (1) Skills developed during clinical placement, (2) the supervisor's role in clinical placement and (3)

Challenges during clinical placement. This section will discuss the three themes in detail.

Theme 1: Skill Developed During Clinical Placement

According to Mulholland & Derdall (2007), clinical placement experience increased the students' understanding of the occupational therapy role and that they had made the correct career choice. Clarke et al. (2014) found that the students felt motivated and encouraged to work in the future, followed by their experiences during clinical placement. They gained benefits in the opportunity to learn and developing their clinical core skills such as observation, task analysis, and clinical reasoning (Yu et al. 2018). The clinical

placement provides a favourable moment for the students to integrate academic knowledge into applied skills and identify how the experience would enhance their future academic learning. Thus, they can apply principles of professionalism and self-direction in their future career as an OT (Mulholland & Derdall 2007).

Students reported doing much clinical reasoning through observation and evaluation (Yu et al. 2018). As supported by Clarke et al. (2014), clinical placement is vital to encourage students' clinical reasoning, problem-solving, communication, and decision-making skills that form the foundation of occupational therapy practice. Students use the environment to validate an occupation-focused and client-centred approach to health and wellbeing and to engage fully with sta and clients (Yu et al. 2018).

Furthermore, clinical placement provides a significant opportunity for students to improve their communication skills. Yu et al. (2018) stated that the ability to communicate with a variety of audiences is crucial. Students' competence to communicate appropriately also had benefits when they engaged in their practice and had opportunities to reflect on their experiences. Students must value the chance to adapt their verbal communication and written documentation during clinical placement (Yu et al. 2018).

Another skill developed by the students during clinical placement is the ability to work as part of a team and interact with colleagues in a professional and e□ective manner (Yu et al. 2018). As they have the experience of working in a team environment, students also learn how to manage conflicts and issues and justify interventions to the team. This learning process is favourable to the students as, in the future, they might need to establish a productive working relationship with colleagues in a multidisciplinary team of diverse contexts such as hospitals, homeless shelters, nongovernmental organizations, charities and volunteer agencies (Yu et al. 2018).

# Theme 2: Supervisor Role in Clinical Placement

The beginning of clinical placement could be a tense period for some students to adapt. Studies from Rezaee et al. (2014) and Yu et al. (2018) found that students experienced feelings of stress and anxiety due to fear and unpreparedness for clinical placement. Studies have highlighted the importance of the supervisor's role during this period to overcome these anxious feelings (Rezaee et al. 2014). Students perceived the need for introductions, explanations, and feedback from their supervisor, especially during the early days of placement (Yu et al. 2018). As in the same article by

Yu et al. (2018), students preferred to have more direct contact with their supervisor during the first few weeks of their placement as it is beneficial to have them at the start to give more general direction or to point out specific things. During placement, supervisors provided feedback in assisting students in determining the best intervention for each client's needs (Rathgeber 2014).

It is beneficial for a supervisor to provide the students with a detailed orientation about reasonable expectations during clinical placement (Yu et al. 2018). Students believed that awareness of the plans and expectations, evaluation and intervention strategies used by the supervisor, review of the related coursework, familiarity with the clinical environment and communication considerations, including guidance and collaboration by the supervisor, may help them control such feelings at the beginning of the fieldwork (Rezaee et al. 2014). Supervisors play an essential part in shaping students' attitudes and in evaluating the students' theoretical knowledge's during clinical application (Towns & Ashby 2014).

The finding of the study by Rezaee et al. (2014) indicated that the students require support and continuous attendance of supervisors during clinical placement. They believed that the timely feedback from their supervisors would reduce their concerns about interpreting the results, as well as enhancing their decision-making skills (Yu et al. 2018).

The other concern of some participants in Rezaee and colleagues study was about the inappropriate communication between the supervisors and the students, a communication that could vary from a hierarchical attitude to excessive closeness. All participants, however, believed in the necessity of establishing a friendly and close relationship between the supervisors and students (Rezaee et al. 2014). Ingwersen et al. (2017) and Rodger et al. (2011) highlighted the importance of clinical placement in constructing a reliable student-supervisor relationship to improve students' quality and successful learning This relationship influenced the ways in which they managed to balance and maintained a harmony environment in the workplace, as well as the process of growth and development in their professional career (Emslie 2012). The students strongly agreed that they had received the right amount of guidance and supervision during the placement (Mulholland & Derdall 2007).

# Theme 3: Challenges Arose During Clinical Placement

In the study conducted by Yu et al. (2018) they found that students declared lack opportunities to enhance their practical skills and knowledge at the beginning

TABLE 1. Key findings from the included studies

No.	Theme	Author	Key Findings
1.	The skill developed during clinical placement.	Mulholland and Derdall (2007) Clarke et al. (2014) Yu et al. (2018)	Strengthen students' understanding of occupational therapy roles. Able to integrate academic knowledge with practical skills. Encourage students' clinical reasoning, problem-solving, communication, and decision-making skills. Develop clinical core skills such as observation, task analysis, and clinical reasoning.
2.	Supervisor role in clinical placement	Mulholland and Derdall (2007)  Rezaee et al. (2014)	Students received a good amount of supervision and guidance during clinical placement.  Students require support and continuous attendance of supervisors during clinical placement.
		(Ingwersen et al. 2017; Rodger et al. 2011)	Establish student-supervisor relationships to assist the quality and success of learning for students.
		Emslie (2012)	Student-supervisor relationship influenced the balance and harmony in the workplace.
		Rathgeber (2014)	The responsibility supervisor is to provide feedback.
		Yu et al. (2018)  Towns and Ashby (2014)	Timely supervisor feedback would reduce students' concerns about interpreting the results and encourage decision-making skills. Supervisors are essential in shaping students' attitudes and evaluating the clinical application
			of theoretical knowledge.
3.	Challenges arose during clinical placement.	Yu et al. (2018)	Lack of opportunities to enhance their practical skills and knowledge at the beginning of the placement.
		Clarke (2012)	Students feel fear of being in new and unfamiliar surroundings.
		Lew et al. (2007)	The lack of feedback from the supervisor was the main reason for failing the placement.
		Rathgeber (2014)	Students feel lost, disorganized and inadequate guidance to succeed during clinical placement due to lack of feedback.
		Rodger et al. (2011)	Insufficient feedback has limited the students' improvement, making them feel unmotivated and hesitant to change.
		(Emslie 2012; Mulholland & Derdall 2007) Rezaee et al. (2014)	Insufficiency in resources and an excess number of assignments.  Students were feeling the low motivation to do such assignments.
		(Rezaee et al. 2014; Yu et al. 2018)	Physical characteristics of educational environments also affect students' experiences.

of the placement as they have yet to establish clearer understanding of occupational therapy roles. Clarke (2012) stated that students fear being in new and unfamiliar surroundings. The students may not be apparent in their role due to unpreparedness for the placement and lack of guidance and support from the university (Clarke 2012). Despite that, by the end of the placement, students acknowledged the rewarding aspects of their experience that has built their selfconfidence. The requirement to work as an occupational therapist gave them a growing sense of believing in themselves so they could take on the role demands (Yu et al. 2018).

It is the responsibility of supervisors to provide feedback. When there is a lack of supervisor feedback, Lew et al. (2007) reveal that it is the main reason for failing the placement. Students feel lost, disorganized and inadequate guidance to succeed during clinical placement due to lack of feedback (Rathgeber 2014). Insufficient feedback has limit the students' improvement, making them feel unmotivated and hesitant to change (Rodger et al. 2011). Hence, the students appreciate the feedback and can cope with negative feedback when being convey appropriately.

Students reported facing challenges during their clinical placement including insufficiency in resources and an excess number of assignments (Emslie 2012; Mulholland & Derdall 2007). A study by Rezaee et al. (2014) revealed that students feel a low motivation to do such assignments. The student's feelings may be due to multiple reasons such as lack of an established scientific method, ignorance of reports by occupational therapists and other staff, duplication of the reports and, in some cases, the supervisors' lack of interest in reporting.

Physical characteristics of educational environments could also affect students' experiences, such as the absence of appropriate facilities and lack of space, an excessive number of students and size of centres, low number of patients and inappropriate referrals of patients to occupational therapy services. However, the presence of patients with various diagnoses might positively affect students' experiences (Rezaee et al. 2014; Yu et al. 2018).

## Recommendations

There are few recommendations emerged from this review. Students often lack confidence and knowledge when going to clinical placement. Therefore, they should be adequately prepared for clinical practice placement, just like the need for increased academic preparation (Mulholland & Derdall 2007; Overton et al. 2009). In order to ensure a quality learning experience, a briefing session between students and clinical supervisors is necessary before placement to address the issue (Crowe & Mackenzie 2002; Mcallister et al. 2006; Mulholland & Derdall 2007; Overton et al. 2009). Good preparation can assist students in preparing both emotionally and mentally throughout clinical placement experiences (Ekelman et al. 2003; Overton et al. 2009). Students who considered pre-fieldwork preparation as necessary had higher satisfaction with their fieldwork experience compare to those who considered it as unnecessary (Hsin-Yu Ariel Chiang et al. 2012).

### CONCLUSION

This narrative review found that occupational therapy students face various experiences during their clinical placement period. The findings of this study are beneficial in improving the current clinical placement practice, highlighting the three main themes of skill developed during clinical placement, the supervisor's role in clinical placement, and challenges that arose.

It also demonstrated that clinical placement could provide an essential variety of learning opportunities. Through clinical placement, students can feel supported to develop the required professional skills. The specific features of clinical placement including theoretical knowledge, practical skills, clinical reasoning, communication skills and interaction with supervisors and peers were the definite aspects to influence students' essential competencies. Students have gained valuable experiences and particular learning opportunities that directly impacted their professional training.

# REFERENCES

Brzykcy, D., Geraci, J., Ortega, R., Trenary, T. & Trenary, T. 2016. Occupational Therapy Fieldwork Education: Value and Purpose The American Journal of Occupational Therapy 70(November/December):

Clarke, C. 2012. Occupational Therapy Students' Experiences of Role-Emerging Placements and Their Influence on Professional Practice.

Tesis University of Brighton.

Clarke, C., Martin, M., Sadlo, G. & De-Visser, R. 2014. The Development of an Authentic Professional Identity on Role-Emerging Placements. British

Journal of Occupational Therapy 77(5): 222-229. Crowe, M. J. & Mackenzie, L. 2002. The Influence of Fieldwork on the Preferred Future Practice Areas of Final Year Occupational Therapy Students.

Australian Occupational Therapy Journal 49( Crowe, M. J. & Mackenzie, L. 2002. The Influence of Fieldwork on the Preferred Future Practice Areas of Final Year Occupational Therapy Students. Australian Occupational Therapy Journal 49(1): 25-36.

Ekelman, B., Dal Bello-Haas, V., Bazyk, J. & Bazyk, 2003. Developing Cultural Competence in Occupational Therapy and Physical Therapy Education: A Field Immersion Approach. Journal of Allied Health 32(2): 131.

Emslie, B. 2012. Clinical Occupational Therapists' Experience of Their Role as Clinical Educators During the Fieldwork Experience of Occupational Therapy Students. Tesis Stellenbosch: Stellenbosch University.

Fieldhouse, J. & Fedden, T. 2009. Exploring the Learning Process on a Role-Emerging Practice Placement: A Qualitative Study. British Journal of

Occupational Therapy 72(7): 302-307.

Hsin-Yu Ariel Chiang, Chu-Hou Pang, Wan-Shan Li, Yi-Nuo Shih & Su., C.-T. 2012. An Investigation of the Satisfaction and Perception of Fieldwork Experiences among Occupational Students.

Ingwersen, K., Lyons, N. & Hitch, D. 2017. Perceptions of Fieldwork in Occupational Therapy.

clinical teacher 14(1): 55-59.

Kirke, P., Layton, N. & Sim, J. 2007. Informing Fieldwork Design: Key Elements to Quality in Fieldwork Education for Undergraduate Therapy Students. Occupational Australian Occupational Therapy Journal 54(S13-S22.

Lew, N., Cara, E. & Richardson, P. 2007. Fieldwork Takes a Detour. Occupational therapy

in health care 21(1-2): 105–122.

Malaysian Occupational Therapy Association. Therapy Occupational Accredited Program WFOT. http://www.ot-malaysia.my/ page/3/?author=0 [2 October 2018].

Malaysian Qualifications Agency. 2016. Programme Standards: Medical and Health Science. Second

Edition(

- Mcallister, L., Whiteford, G., Hill, B., Thomas, N. & Fitzgerald, M. 2006. Reflection in Intercultural Learning: Examining the International Experience through a Critical Incident Approach. Reflective
- Practice 7(3): 367–381. Mulholland, S. & Derdall, M. 2007. Fieldwork Experience: Student and Preceptor Perspectives. Canadian Journal of Occupational Therapy 74(3): 161-171.
- Overton, A., Clark, M. & Thomas, Y. Review of Non-Traditional Occupational Therapy Practice Placement Education: A Focus on Role-Emerging and Project Placements. British Journal of Occupational Therapy 72(7): 294–301.

2014. Rathgeber, K. L. Exploring Occupational Therapy Students' Meaning of Feedback During Fieldwork Experiences. Tesis Walden University.

Rezaee, M., Rassafiani, M., Khankeh, H. & Hosseini, M. A. 2014. Experiences of Occupational Therapy Students in the First Fieldwork Education: A Qualitative Study. Medical journal of the Islamic

Republic of Iran 28(110.

Rodger, S., Fitzgerald, C., Davila, W., Millar, F. & What Makes a Quality Allison, H. 2011. Occupational Therapy Practice Placement? Students' and Practice Educators' Perspectives. Australian Occupational Therapy Journal 58(3):

- Rodger, S., Webb, G., Devitt, L., Gilbert, J., Wrightson, P. & Mcmeeken, J. 2008. Clinical Education and Practice Placements in the Allied Health Professions: An International Perspective. Journal of Allied Health 37(1):
- Thorogood, C. & Halls, R. 2013. Clinical Placement Resource Manual for Students. 7.
- Towns, E. & Ashby, S. 2014. The Influence of Practice Educators on Occupational Therapy Students' Understanding of the Practical Applications of Theoretical Knowledge: A Phenomenological Study into Student Experiences of Practice Education. Australian Occupational Therapy Journal 61(5): 344-352.
- Willcoxson, L., Cotter, J. & Joy, S. 2011. Beyond the First-Year Experience: The Impact on Attrition of Student Experiences Throughout Undergraduate Degree Studies in Six Diverse Universities. *Studies in Higher Education* 36(3):

World Federation of Occupational Therapists. Minimum Standards for Education of Occupational Therapists Revised 2016.

re, M. & Thomas, L. 2003. Improving the Retention of Students from Lower Socio-Yorke, M. & Thomas, L. Economic Grou. Journal of Higher Education Policy and Management 25(May):

Yu, M.-L., Brown, T. & Etherington, J. Students' Experiences of Attending an Innovative Occupational Therapy Professional Practice Placement in a Childcare Setting. Journal of Occupational Therapy, Schools, & Early

*Intervention* 11(1): 21–36.

Dzalani Harun\* & Hanif Farhan Mohd Rasdi Programme of Occupational Therapy, Centre for Rehabilitation and Special Needs Studies. Faculty of Health Science, Universiti Kebangsaan Malaysia, Jalan Raja Muda Abdul Aziz, 50300 Kuala Lumpur, Malaysia.

Aimi Najihah Abdul Razak Occupational Therapy Department, Daehan Rehabilitation Hospital Putrajaya, Block B, Two IOI Square, IOI Resort, 62502 Putrajaya, Malaysia.

Diserahkan: 21 September 2022 Diterima: 22 September 2022

e-ISSN: 2600-9021

<sup>\*</sup>Pengarang untuk surat menyurat; e-mel: dzalani@ukm.edu.my