

Transformative Learning Approach in Dietetics Curricular: A Paradigm Shift in Clinical Dietetics Practicum

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Abstract

Background/Problem: The COVID-19 pandemic posed challenges to the traditional approach in clinical dietetics practicum (CDP). In that light, dietetic educators have to rapidly forged innovation in curriculum delivery by incorporating transformative learning (TL). The major tenet of TL is the deliberation of disorienting dilemma (DD) among the students and the educators as a catalyst for a paradigm shift in delivering evidence-based nutrition care. Hence, TL in the current context deployed active learning, teamwork, communication skills and digital competency among dietetics interns to drive the change in practice. **Purpose:** To discover the experiences and involvement of interns undergoing CDP using TL approach. **Method:** TL strategies were imbedded in a 6-week self-directed online program aimed at delivering evidence based nutrition care for a targeted patients population. A total of 36 of students were divided into seven groups. Each group were required to explore a non-face to face strategies to deliver nutrition care, representing DD scenario. Implementation of new approach to deliver the evidence-based contents that are tailored to patients' needs were achieved via need assessment analysis, engagement and discussion with stake holders and careful development plan for action. Their experience and involvement were documented in the report. **Results:** TL approach resulted in strengthened professionalism, improved communication skills, coordination of care, team work, improved confidence level and wiser in handling challenging situation. It is also evidence that TL approach expedite digital competency of these dietetic interns not only to be ready for entry-level dietitian but also the aftermath of COVID-19 pandemic. **Implications:** TL approach can be effectively applied to the

CDP, it may have the potential to advance lifelong learning that enhance the dietetics profession.

Keywords: Clinical, Dietetics, Internship, Lifelong Learning, Transformative Learning

Introduction

The global Covid-19 pandemic impacted in the suspension of face-to-face teaching and education across the world (Goh & Sandars, 2020; Gallagher & Schleyer, 2020). Most of institution have adopted several innovative strategies in response to the crisis, with shift to online learning and assessment (Lian et al., 2020).

Clinical Dietetics Practicum (CDP) is an intensive supervised practice (SP) where interns are train at selected healthcare institutions by clinical instructor. Traditionally, interns physically perform nutrition care process, among other include review of medical record, assessment of nutrition status, diagnose nutrition-related problems, implement appropriate nutrition care plan, and monitor patients' progress closely. The Covid-19 pandemic posed challenges to the traditional approach in SP leading to disorienting dilemma and 360° transformation on clinical placement strategies and implementation.

Transformative learning (TL) theory was first described by (Mezirow, 2000). It is an approach to teaching based on promoting change, where educators challenge learners to critically question and assess the integrity of their deeply held assumptions about how they relate to the world around them. We applied the theory of transformative learning to the CDP to facilitate disequilibrium or a "disorienting dilemma" that is a trigger to prompt critical reflection.

According to Mezirow (2000), learning is delineated by meaning structures. Although people are typically resistant to learning new ideas or accepting knowledge outside of their existing structures, their meaning structures can be transformed when they confront a "disorienting dilemma" that their prior knowledge cannot explain. This disorientation triggers reflection and a re-evaluation of assumptions, and with facilitation, it can lead to a change in personal outlook (Taylor & Cranton, 2012). The final stage is a change in both thinking and action especially in delivering evidence-based nutrition care.

Hence, TL in the current context drive disorienting dilemma to students via unprecedented approach in performing nutrition care process without physical contact with the patients, against what they have learn and acquired in the classroom. This lead them to critically re-evaluate their current understanding and assumption about clinical dietetic placement. They were able to produce solution to this problem and gain additional soft skills on top of required core competencies via indulging in various digital approach such as delivering nutrition care process via Facebook (FB) Live and providing digital educational tools to targeted population.

Even though, it was the first time this approach has been applied in the clinical dietetic practicum and TL had successfully deployed active learning, teamwork, communication skills and digital competency among dietetics interns to drive the change in practice.

Method

TL strategies were embedded in a 6-week self-directed online program. Total of 36 interns were involved which divided into 7 groups. Each group were supervised with one respective Clinical Instructor and involved with Clinical Lecturer.

The interns were assigned to complete TL project which was an informative webinar which they did through FB live that can connect themselves with the public and to spread awareness. Before they conduct the webinar, they were prepared the tentative, list out the plans, objectives, goals and promote the webinar to attract more audience during the event.

The webinar was delivered through FB Live Klinik Diet Universiti Putra Malaysia (UPM). They link the webinar with streamyard as it can link multiple people to be in the live session apart from it is highly organized. Webinar is beneficial as it can connect the moderator, panels, and the audiences all in one time. In addition, to make the slides and poster more attractive and easier to understand, they used Canva as their medium of presentation.

To gain more crowd, a promotion through WhatsApp, Instagram and FB has been done to promote the program. On FB, they share their posters on Klinik Diet UPM official page as many of the followers already know that the page will share knowledgeable content. They also blast their poster to selected community groups that aligned with their topic and target group.

During the Fb Live webinar, they received a lot of questions from the audience which show a good engagement. At the end of their task, they presented the outcomes from the webinar based on the analysis of promotional poster and FB live video. Feedback from the audiences and UPM staff also were collected.

The medium used for their second TL project was educational tool (digital booklet) as in this pandemic era, people were limited to travel around thus it would be difficult to use the common pamphlet. Besides, people nowadays are moving toward digital platforms where everything can be obtained at fingertips. This digital booklet is easily accessible as it can be used everywhere and anywhere since people just need to scan or search it at the Hospital Pengajar Universiti Putra Malaysia (HPUPM) website. Hence, this would open opportunities for people who are far away or have transportation problems to meet the dietitian virtually and nutrition intervention or counselling can be made using these digital educational tools. In addition, it also can reduce the cost for printing and are environmentally friendly with no paper used.

At the end of their CBP, a report of their feedback for both projects were documented. The report describes how did the TL project boost their involvement and experience in the learning process. The feedback were then detailed out in terms of cognitive, psychomotor and/or affective domains.

Results and Discussion

From the TL project which include the interns' involvement and experience in the learning process in terms of

- *Cognitive Domain*

In the process of coming up with the idea of a digital booklet and topic/title chosen, they learnt to make it creative which they try to do with some brainstorming and several discussions included. To meet today's generation demand and to engage with the save-environment campaign, they need to think out of the box such as how to deliver the educational tools through the internet and how to make it more accessible to both dietitians and patients. They also need to think on which application and platform can be used to make it more easily accessible. From all this process, they develop creativity in which they have the process of practicing several applications and being able to come out with a QR code to make

it accessible to their digital booklets that can flip through and give a real book experience to the patient/community.

- *Psychomotor Domain*

From their FB live, they were able to ensure a well design marketing and promoting which are required to attract the crowd and can bring a massive boost of audience which include to prepare who is the target group, is there any organization involved with the target group, how to write a proper sentence to attract the audience and which social media platform that is suitable to attract more people. Other than that, they are also able to learned on how to handle the FB live using the streamyard which makes the live more smooth and organize as some of us never encounter with streamyard and they learned on additional function and features from this application such as there is personal chat system for the backstage and they can see all the audience's comment and able to choose which one to display at the live.

Other than that, they learned on how to simplify the content and make it easier for the audiences to understand it because they are usually exposed to do presentations for case study or subject purpose which include much information inserted in slides to make the assessor easily refer. However, when it comes to social media and the general population, a simple word with a more interesting picture/video is much more applicable to attract them as more words cause them to lose interest and easily get bored.

- *Affective Domain*

To act professional and empathy when facing any difficulties or unexpected situations as their main problems encountered during rehearsal is the internet connection, thus early preparation and staying calm is important to have the event go smoothly.

Furthermore, the TL project also help in improving interns' improvement. Based on the TL project, FB live is a good platform to deliver clinical topics, but the content must include practicality and it is important to choose catchy titles to attract a larger audience and provide a good visual of posters, slides and video. Furthermore, it is a good thing to include a session with the audience to grab their attention and have a high engagement for the audience as they might get bored.

While for the educational tools, since there is a lack of digital booklets usage and might be newly introduced in dietetics' practices in Malaysia, a proper process is important to be discuss in terms of usage, practicality, suitability with today's generation, more consideration, challenges and how to overcome it need to be considered. However, a digital platform is a good start to be practiced in view of internet and digital usage that keep increasing year by year and to attract people to seek a dietitian's consultation for a nutrition counselling in managing individualized nutrition intervention related to disease.

During their outcome presentation, interns were asked to come out with one word to describe their overall experience in TL project which help in improving their motivation. The first word is adaptability which means the quality of being able to adjust to new conditions. Since each person has their own personality and characteristics that might or not suit others, thus adaptability is a crucial thing in making a good team and having the best outcome of all.

The second word is positivity which means the practice of being or tendency to be positive or optimistic in attitude. This word links to the first point, if the team is able/not able to have a good combination, a positive attitude is important to spread a good environment

and to enhance momentum of the group. Without positivity, the group might have arguments and be unable to give the best input toward each other.

The third word is unique which means the quality of being particularly remarkable, special, or unusual. As every single person has their own uniqueness like some person might have creative personality, some might be knowledgeable, and others have good soft skills. Thus, by knowing each other's uniqueness either strength or weakness is important to complete each other and give a unique outcome too.

From the uniqueness, it can come out with dynamics which means group interaction that determines the group functions and effectiveness. Since everyone has their own uniqueness and if able to apply a group dynamic, it will lead to a great teamwork. The last word is grateful, in which each member should cooperate well and be grateful by appreciating each other. And by being grateful, the positiveness, adaptability and dynamic groupmate can be performed.

Overall, the experiences and involvement after the TL approach with the interns resulted in strengthened professionalism which included in teamwork, time management, improved communication skills, increased their motivation and confidence level. It is also resulted for the interns in engagement with the public with evidence-based nutrition, using digital platform for working/education and wiser in handling challenging situation. In addition, this study or approach give a significant contribution in dietetics profession training and practice.

Conclusion

As conclusion, TL approach can be effectively applied, and it may have the potential to advance lifelong learning that enhance and sustainability the dietetics profession training and practice. Again, it is also a platform for preparing a student to be ready for entry-level practicing dietitian in various areas of clinical and community management. On the other hand, expedite digital competency of these dietetic interns not only to be ready for entry-level dietitian but also the aftermath of Covid-19 pandemic.

Co-Author Contribution

The authors affirmed that there is no conflict of interest in this article. Author 1 carried out the field work, prepared the literature review, wrote and overlook the writeup of the whole article. Author 2 proofread the whole article and reviewed the article. Author 3, 4 and 5 carried out the field work and reviewed the article.

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