


An online messaging platform for learning ‘Wound Management’: A novel method of continuous professional education

Amila Chandrasiri, Eranda Karunadasa, Ruchira De Silva, Konara Mudiyanseelage Somarathna, Pradeep Aththanayake, Amali Ruwanga, Nadini Iresha

Regional Director of Health Services Office - Galle, Unawatuna, Sri Lanka.

Correspondence: Dr. Amila Chandrasiri
e-mail: amilachan@yahoo.com
 <https://orcid.org/0000-0002-3242-1489>

Submitted on 24.07.2023 and accepted for publication on 10.08.2023

Introduction

Chronic wounds are one of the commonest patient presentations at the primary care level in Sri Lanka (1). A recent survey conducted in Southern Province has shown 15% of wounds presented to out-patient departments (OPDs) are diabetic ulcers and 10% are dermatitis ulcers. This is a significant source of morbidity and affect individuals physically, psychologically, socially and financially (2). The issue of chronic wounds is expected to be worsening as an impact of aging population and rising prevalence of diabetes (3).

But the quality of wound management seems to be sub-optimal and at a basic level in primary care as all types of wounds receive a low level of care with the use of basic antiseptic solutions and basic dressing material (3). On the other hand, knowledge, and skills of managing different types of wounds seems to be very low among medical staff and all types of wounds generally receive same type of care. But each type of wounds requires specialized care with different solutions and appropriate dressing material (4).

Sub-optimal wound care leads to worsening of these wounds and progressing into several complications (5). That adds a significant burden at secondary and tertiary levels as these patients may require hospital admissions and advanced surgical interventions. Inappropriate management of diabetic wounds seems to be common and it leads to devastating complications like extreme

suffering, amputations, wound sepsis and death. Therefore, improving wound care at primary care can be recognized as an important and timely need in order to improve quality of care and reduce associated morbidity and mortality (2). This will reduce the burden on secondary and tertiary levels will also save health care expenditure (3).

Therefore, it's important to address these deficiencies. Lack of knowledge and skills among primary care medical staff and non-availability of expert opinion stand as major contributory factors for these deficiencies (6). Therefore a 'telemedicine' intervention has been designed to offer expert opinion for wound management for primary care. A *WhatsApp*TM group was created as the information sharing portal in implementing this intervention. This article intends to describe the designing and implementation of this intervention as a novel method of continuous professional education (CPE).

Designing the intervention

This intervention has been designed as a continuation of primary care wound management training programme conducted by Regional Director of Health Services (RDHS) office, Galle in 2022. A *WhatsApp* group was created including a medical officer (MO) and nursing officer (NO) from five selected primary care hospitals (PCHs) in Galle District. The number was limited to five as this was a pilot and the number of serving hospitals is

expected to increase as the programme progresses. A group of consultant surgeons were included to the group as panel of experts.

Implementation of the intervention

A protocol has been set up to upload inquiries. A special orientation was done for the group to introduce the protocol. A MO or NO from designated hospitals can upload a photo of a wound with brief history when a patient present with chronic wound which carry significance. Any wound with special significance are supposed to report. A standard protocol had been introduced for reporting. Text box 1 describes the protocol. They were specifically advised not to include face of the patient for any photograph to considering privacy issues.

- Photograph – Should be taken from 2 angles
- Characteristics of wound
 - 1 – Site
 - 2 – Approximate size
 - 3 – Color and nature of wound bed
 - 4 - Presence of discharges and color
 - 5 – Presence of peripheral pulses
 - 6 – Presence of pain

Text box 1: Protocol for reporting information about wounds

A Consultant Surgeon has been designated to provide responses for each week. The surgeon is requested to provide an expert opinion by describing optimum assessment, and management of the given wound. The response is seen by all the participants in the group and that creates the opportunity of shared learning. The MO/NO who posted the inquiry was also supposed to upload follow up information with a photographs and patient status.

A volunteer coordinator has been appointed to facilitate the process. A registered nurse with special interest in wound care had been employed for the task. The facilitator has to ensure that every new entry meets the prescribed protocol of reporting.

If any deficiency is noted, facilitator personally contact the reporting person and ask to complete the entry. If a response is not provided by the expert panel, facilitator reminds the 'on-call' expert to post the response. The quality management unit (QMU) of RDHS office azxis entrusted with the responsibility of overall monitoring. Periodical review meetings will be arranged for the group to mitigate upcoming issues. A log is maintained including all entries and responses provided by experts and that will be kept as an archive with the intension of using for further review and education.

Discussion

This programme can be recognized as a novel and effective method of CPE. Online messaging platforms such as *WhatsApp* groups have emerged as an effective method of peer learning. Technological advances have driven huge changes in educational practices over the last decade (7). Medical education is no exemption with an increasing trend to use social media and smartphones for teaching and learning. *Facebook*, *WhatsApp*, *Instagram*, and *YouTube* are the platforms promoting collaborative learning, improved communication and knowledge sharing (8). This intervention reiterates the feasibility of using *WhatsApp*-based platform for CPE.

WhatsApp has emerged as a popular and convenient tool in medical education (7). Several features of *WhatsApp* have made it a very effective tool for distant education. It is a simple tool that requires minimal knowledge and skills to run in own devices ' (9). It provides multiple benefits for distant learning. The interactive nature of *WhatsApp* is a significant feature that makes it an effective tool for adult learning (10). Therefore, *WhatsApp* can be successfully utilized as a collaborative tool. Adult learning is always a bi-directional interaction. It enables participants to provide real-time feedback and active engagement, which was highly useful in this intervention (9). However smart phone penetration becomes a key determinant in promoting such an intervention in a system(11).

On the other hand the use of *WhatsApp* can also bring some negative effects including addiction, distraction and maintenance of privacy(8).

Adult learning is known to be motivated by several factors. Motivation is a major determinant of the quality of learning and success, the lack of which may well explain why certain adult learners are discouraged, have lost interest or abandon the programme, with a feeling of powerlessness (12). This theoretical concept was considered in designing this intervention. Adult learners appreciate working towards clearly-defined goals (13). This programme had a relevant and focused goal. Perceived relevance is a key factor which determines motivation in adult learning (14). As wound management is a common encounter in primary care, perceived relevance of this programme is high. It is important to consider the demands of their jobs, and what skills they need to excel in their professional duties(15).

This programme was intended to develop a basic skill which is required by doctors and nurses in primary care. The planning of CPE programmes for medical professionals should be based on an interactive model (12). There should be timely feedback and self-directedness. This intervention ensured both these requisites. Shared learning is another key principle behind this learning intervention. The belief that the effectiveness of patient care will improve through collaboration and teamwork within and between health care teams is providing a focus for 'shared learning' in health professional education (16).

Conclusion

Perceived relevance is a key factor which determines motivation in adult learning. Shared learning is an effective method of developing skills among medical professionals. This *WhatsApp* group is a practical and feasible way for CPE. Using *WhatsApp* for CPE enables peer learning in an efficient and interactive manner. Adult learning is always a bi-directional interaction and *WhatsApp* enables participants to provide real-time feedback and active engagement.

References

1. O'Reilly G, Fitzgerald M, Ariyananda PL, Jayasekera K, Williams S, Charlton S, *et al.* Trauma reception and resuscitation in Sri Lanka: the Health for the South Capacity-Building project. *Emergency medicine Australasia. EMA.* 2009; **21**(2): 147-152.
2. Benison L. Primary care networks: an opportunity to improve community wound care. *British Journal of Community Nursing.* 2020; **25**(3): S20-S5.
3. Powers JG, Higham C, Broussard K, Phillips TJ. Wound healing and treating wounds: Chronic wound care and management. *J Am Acad Dermatol.* 2016; **74**(4): 607-625; quiz 25-6.
4. Francesko A, Petkova P, Tzanov T. Hydrogel Dressings for Advanced Wound Management. *Current Medicinal Chemistry.* 2018; **25**(41): 5782-5797.
5. Woo KY. Physicians' knowledge and attitudes in the management of wound infection. *Int Wound Journal.* 2016; **13**(5): 600-604.
6. Cernuda Martínez JA, Castro Delgado R, Ferrero Fernández E, Arcos González P. Self-Perception of theoretical knowledge and practical skills by primary Health Care Physicians in Life-Threatening Emergencies. *Prehosp Disaster Med.* 2018; **33**(5): 508-518.
7. Coleman E, O'Connor E. The role of WhatsApp® in medical education; a scoping review and instructional design model. *BMC Medical Education.* 2019; **19**(1): 279.
8. Latif MZ, Hussain I, Saeed R, Qureshi MA, Maqsood U. Use of Smart Phones and Social Media in Medical Education: Trends, Advantages, Challenges and Barriers. *Acta Inform Med.* 2019; **27**(2): 133-138.
9. Gebbia V, Piazza D, Valerio MR, Firenze A. WhatsApp Messenger use in oncology; a narrative review on pros and cons of a flexible and practical, non-specific communication tool. *E Canc Medi Sci.* 2021; **15**: 1334.
10. Sinclair P, Kable A, Levett-Jones T. The effectiveness of internet-based e-learning on clinician behaviour and patient outcomes: a systematic review protocol. *JBIM Database of Systematic Reviews and Implementation Reports.* 2015; **13**(1): 52-64.
11. Katz M, Nandi N. Social Media and Medical Education in the Context of the COVID-19 Pandemic: Scoping Review. *JMIR Med Educ.* 2021; **7**(2): e25892.

12. Pelaccia T, Viau R. Motivation in medical education. *Medical Teacher*. 2017; **39**(2): 136-140.
13. Russell SS. An overview of adult-learning processes. *Urol Nurs*. 2006; **26**(5): 349-352.
14. McLean M, Gibbs TJ. Learner-centred medical education: Improved learning or increased stress? *Educ Health (Abingdon)*. 2009; **22**(3): 287.
15. Kusurkar RA, Croiset G, Mann KV, Custers E, Ten Cate O. Have motivation theories guided the development and reform of medical education curricula? A review of the literature. *Acad Med*. 2012; **87**(6): 735-743.
16. Horsburgh M, Lamdin R, Williamson E. Multiprofessional learning: the attitudes of medical, nursing and pharmacy students to shared learning. *Med Educ*. 2001; **35**(9): 876-83.