

Practical Study on Interprofessional Education Program for Clinical Research Literacy through Writing Cochrane Systematic Reviews with Information and Communication Technology

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BACKGROUND

- Interprofessional education (IPE) is important to achieve high-quality team medical care.
- Clinical research literacy is required as an essential ability for all medical personnel to practice evidence-based medicine.
- In order to acquire clinical research literacy, it is effective to not only learn the required knowledge but also conduct an actual clinical study as an on-the-job training (OJT). However, it is often difficult to construct and maintain primary research data.

OBJECTIVE

- This practical study on an IPE program seeks to maximize clinical research literacy outreach, providing continuous support for writing Cochrane systematic reviews (Cochrane SRs) using information and communication technology (ICT) in a medical university comprising schools of medicine, dentistry, pharmacy, and nursing and rehabilitation sciences.

METHODS

- We built an e-learning platform for essential clinical research literacy in basic clinical epidemiology and medical statistics.
- On this online learning website, we provide on-demand e-learning contents for a total of 45 hours on three subjects: basic clinical epidemiology, basic clinical statistics, and clinical statistics hands-on.
- We also regularly hold face-to-face educational workshops on Cochrane SRs in collaboration with the Japan Cochrane Center (Figure 1).
- These IPE programs continuously support activities related to Cochrane SRs such as title registrations, protocols, and full reviews.
- We further developed this platform to support the IPE programs through online systems (online meetings, bulletin boards, etc.)..

RESULTS

Figure 1. Cochrane Japan Certified Workshop 2020

- January 11th, 2020
Cochrane Systematic Review Title Registration Workshop
- July 11th, 2020
Cochrane Systematic Review Protocol Workshop
- December 12th, 2020
Cochrane Systematic Full-Review Protocol Workshop Day 1
- December 19th, 2020
Cochrane Systematic Full-Review Protocol Workshop Day 2

Figure 2. Number of registered members of online e-learning program

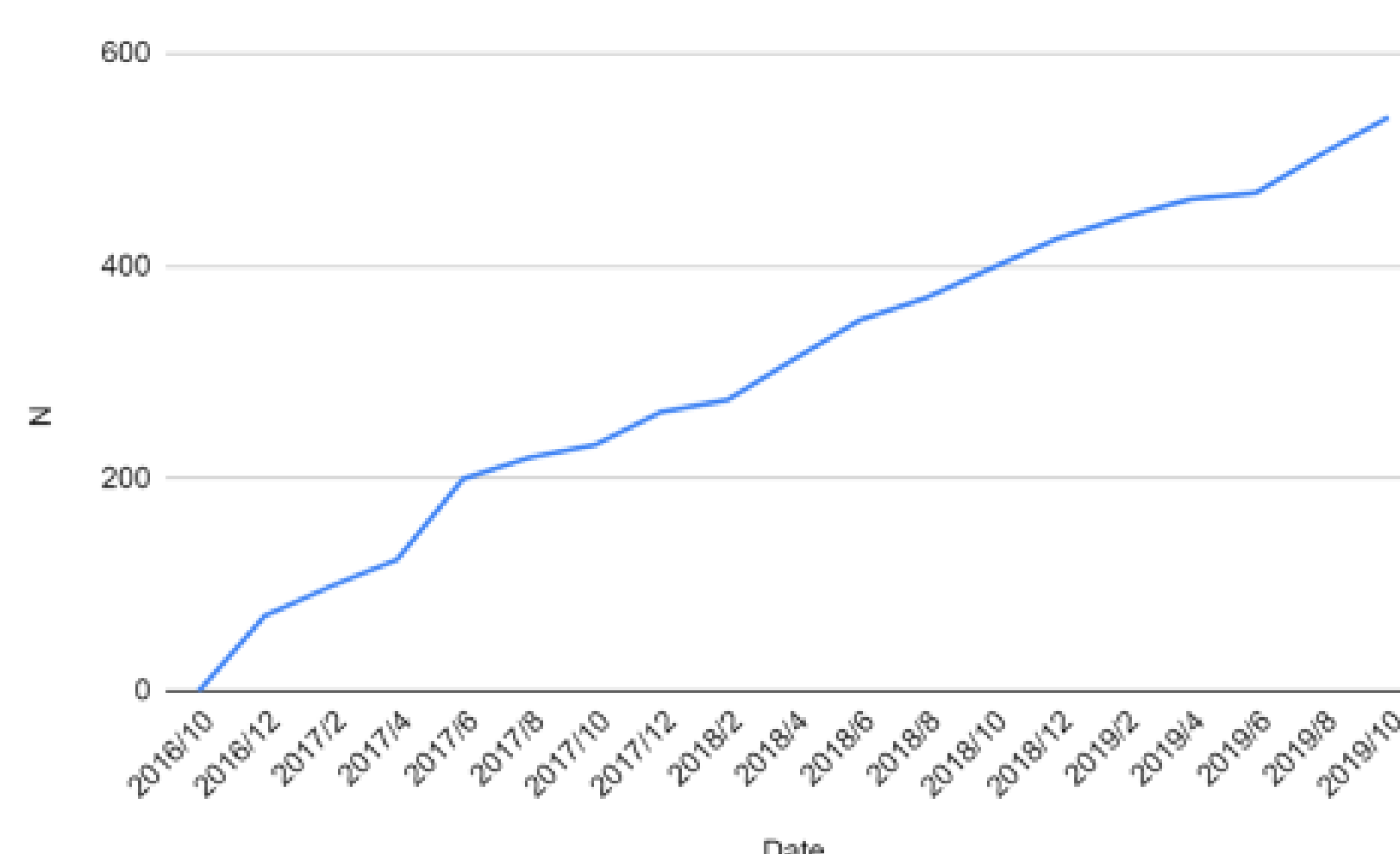
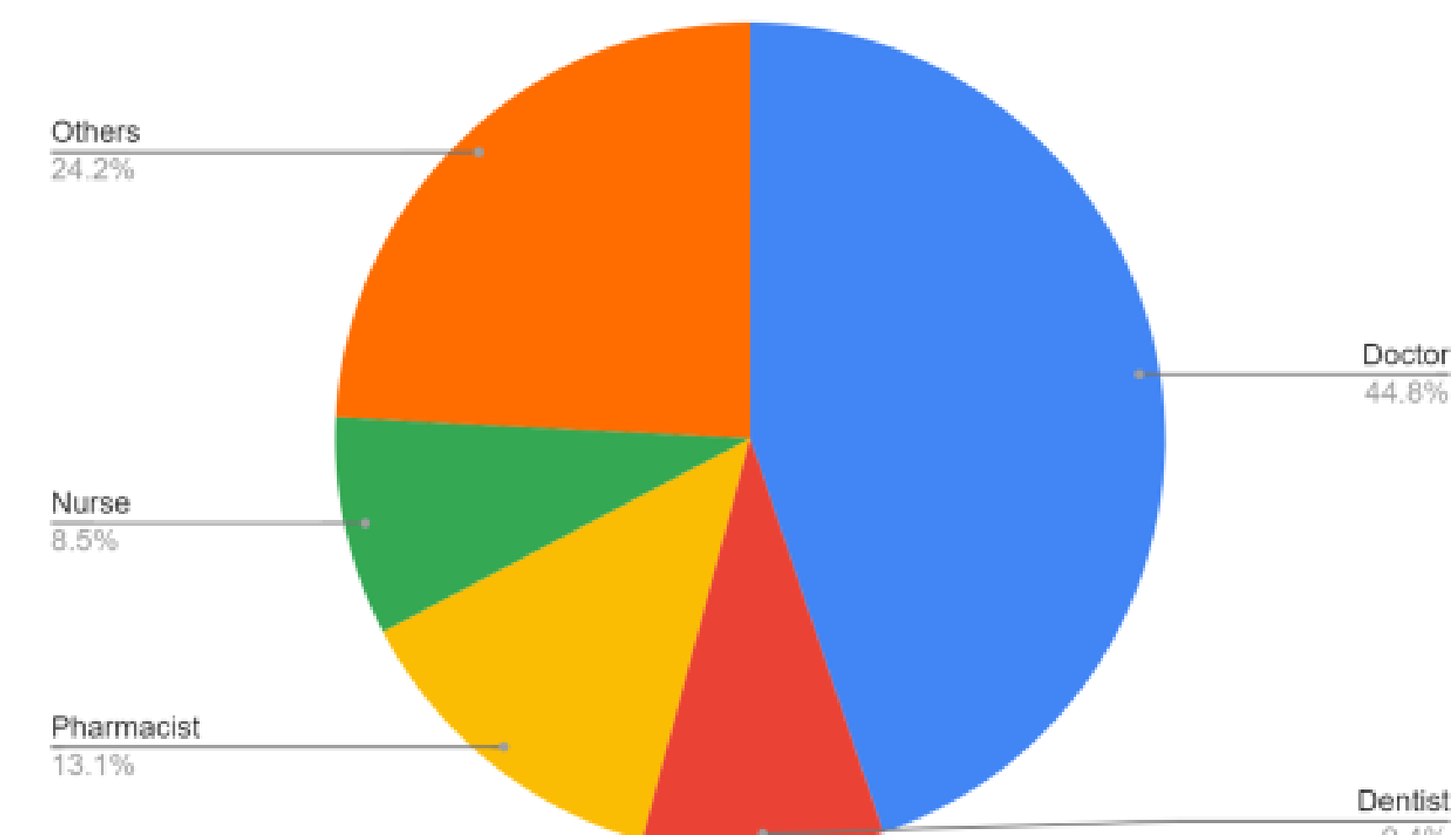


Figure 3. Proportion of professions of registered members of online e-learning program



- By the end of September 2019, 540 people had registered for online learning (Figure 2), they consists of 44.8% for doctors, 9.4% for dentists, 13.1% for pharmacists, 8.5% for nurses, and 24.2% for others (Figure 3).
- The on-demand e-learning contents have been viewed more than 1,800 times in total.
- We have registered one Cochrane SR title and published one Cochrane SR protocol paper (Hasegawa T et al. Aldosterone antagonists for people with chronic kidney disease requiring dialysis (Protocol). *Cochrane Database of Systematic Reviews*. 2018. DOI: 10.1002 / 14651858.CD013109.) so far, and one Cochrane SR full review article is also in progress.

CONCLUSIONS

- Cochrane SRs are secondary researches using data from previous studies, and thus do not require primary data.
- Cochrane SRs require a series of clinical research literacy such as research proposal writing, literature search, data analysis, and interpretation and consideration of results. Therefore, Cochrane SR is suitable for OJT in clinical research.
- We built a hybrid IPE program (face-to-face and e-learning) for clinical research literacy through continuous support for writing Cochrane SRs.
- This IPE program has the potential to alleviate the spatial and temporal barriers to the dissemination of clinical research literacy to busy healthcare professionals in daily practice.
- Patient or healthcare consumer involvement: In the future, patients and healthcare consumers should be involved not only in the development of clinical practice guidelines but also in the education of medical professionals to acquire clinical research literacy.
- Relevance to diversity: It is recommended that the Cochrane systematic review (Cochrane SR) team should be composed of diverse professionals. Cochrane SR is an appropriate subject for clinical research literacy acquisition from the perspective of interprofessional education.
- Relevance to patients and consumers: Providing evidence-based team medical care is necessary for patients and healthcare consumers. To accomplish this objective, all clinical personnel should acquire clinical research literacy through interprofessional education.