



A lesson learnt: Implementation of interprofessional education in disaster management at Faculty of Medicine Universitas Gadjah Mada, Indonesia



Titi Savitri Prihatiningsih^{a,*}, Widyandana^a, Elsi Dwi Hapsari^b, Siti Helmiyati^c,
Aziz Jati Nur Ananda^c

^a Department of Medical Education, Faculty of Medicine, Universitas Gadjah Mada, Indonesia

^b Department of Nursing, Faculty of Medicine, Universitas Gadjah Mada, Indonesia

^c Department of Health and Nutrition, Faculty of Medicine, Universitas Gadjah Mada, Indonesia

ARTICLE INFO

Article history:

Received 5 October 2015

Received in revised form

19 August 2017

Accepted 9 October 2017

Keywords:

Interprofessional education

Disaster management

Emergency preparedness

Collaborative practice

ABSTRACT

Background: Indonesia is located in the Pacific ring of fire where natural disasters frequently occur, and reducing their impact is essential for Indonesia. Interprofessional education and collaborative practices are needed for health professions to combat natural disasters and should be started from the beginning of their undergraduate learning.

Objective: To explore the effectiveness of interprofessional education program in the context of disaster management to achieve health profession competencies for students of Medicine, Nursing, and Health and Nutrition program.

Methods: A randomized, controlled trial using descriptive mixed-method analysis was conducted with Year 3 students at Faculty of Medicine Universitas Gadjah Mada, Indonesia, which consisted of Medical, Nursing, and Nutrition students ($n = 72$). They were divided randomly into 2 groups of subjects: the intervention group ($n = 36$) and the control group ($n = 36$). The intervention group received content interprofessionally while the control group received the same content unprofessionally. Quantitative data (knowledge test scores and ratings of communication and clinical skills) were analyzed using paired t-tests and independent t-tests while qualitative data (data from log book and focus group discussion) were analyzed using inductive content analysis.

Results: Student's knowledge about disaster management in both groups increased significantly ($P < 0.05$). The scores of the intervention group's communication skills were significantly better than the same scores in the control group ($P < 0.05$). However, scores of clinical skills and knowledge level did not differ significantly between the two groups. Qualitative data showed that students from both groups agreed that interprofessional training in disaster management would be more effective.

Conclusion: Disaster management delivered through interprofessional education methods has advantages in training students from a variety of different backgrounds to be able to better communicate and collaborate with other professions.

© 2017 Elsevier Inc. All rights reserved.

1. Introduction

The concepts of interprofessional education and interprofessional practice have been increasingly championed as part of a growing imperative to embrace different models of health and social care. The World Health Organization (WHO) summarized the

evidence in a Framework for Action on Interprofessional Education & Collaborative Practice. Effective interprofessional practice can reduce lengths of hospital stay, improve quality of life for patients and families, improve access to care, enhance patient safety and facilitate recruitment and retention of health care professionals.¹ The Centre for the Advancement of Interprofessional Education (CAIPE) defines interprofessional education as when "...two or more professions learn with, from, and about each other to improve collaboration and the quality of care".² Modern health-care teams

* Corresponding author.

E-mail address: savitri66@yahoo.co.uk (T.S. Prihatiningsih).

require health professionals trained to work together at one site, such as a unit team, and also as extended teams with a variety of perspectives and skills, in multiple locations. Interprofessional education and collaborative practice can positively contribute to some of the world's health challenges such as: family and community health; HIV/AIDS, tuberculosis, and malaria; health action in crisis; health security; non-communicable diseases; and mental health through improved health delivery systems and services.¹

Natural disasters are one of the health situations that need interprofessional practice. In such a chaotic situation, such as an earthquake, flood, or tsunami, a well-planned emergency response is essential. Interprofessional education provides health workers with the kind of skills needed to coordinate the delivery of care when emergency situations arise.

Situated in the Pacific Ring of Fire (an area with high tectonic activity), Indonesia has a high risk of natural disasters. According to the National Disaster Management Agency (Badan Nasional Penanggulangan Bencana/BNPB), floods accounts for 31% of disasters in Indonesia during the last 200 years, followed by fire (17%), drought (13%), typhoon (12%), and other disasters.^{3,4} More than 600,000 people a year suffer from natural disasters in Indonesia.⁵ Therefore, the Government of Indonesia has prioritized the control and management of natural disaster risks in its National Medium-Term Development Plan (RPJMN 2010–2014). The government has significantly strengthened the framework for disaster prevention, preparedness, and response.⁵

Training health workers to collaborate in disaster management can be initiated with an interprofessional education. In a California-based study, Fowkes et al.⁶ used a number of training exercises that were designed to improve community emergency preparedness plans through enhancing the communication networks among health professionals.⁷ The research addressed a general lack of emergency preparedness among health professionals and provided a successful training model that can be used as a framework for disaster management. In this study, a scenario was developed with several learning objectives for two exercises about pandemic influenza. Exercise One was used for facilities that had no emergency plan, or were developing one, and focused on needs and components for the plan. Exercise Two added information about activating an incident command system, community outreach, and patient surge capacity. Twenty-three local health professionals were recruited by coordinators to conduct the exercise. After the scenario was presented, group responses were recorded and an after action report (AAR) was completed to develop action plans. The action plans were assessed three times: when the exercises were scheduled, immediately before the exercises, and, for one-third of sites, three months after the exercises. The results of the research demonstrated the importance of interprofessional education and collaboration.

This randomized, controlled study examines the impact of a Disaster Management Block developed to train pre-clinical students from three different undergraduate programs in interprofessional education. This study aims to explore the effectiveness of the IPE model to achieve health professions' competencies in three specific areas: knowledge, clinical skills and communication.

2. Methods

2.1. Setting

The Faculty of Medicine, Universitas Gadjah Mada, Yogyakarta, Indonesia (FM UGM) enroll students in three undergraduate programs, namely Medicine, Nursing, and Health and Nutrition. Interprofessional education has not been fully implemented in the curriculum. Prior to this experience, interprofessional education

had been implemented during the clinical phase under the Programme called Community Health Field Practices or *Kuliah Kerja Kesehatan Masyarakat*. Students from Medicine, Nursing, and Health and Nutrition programs collaborated during placements at the Community Health Centre (*Puskesmas*).

2.2. Curriculum description

A specific interprofessional teaching module on disaster management was formulated with four main competences to be learned through this module, namely (1) understanding interprofessional practice through interprofessional education in the context of disaster management, (2) understanding the impact of disasters on the provision of interprofessional health services, (3) understanding the role and function of a medical doctor, a nurse and a dietician in a health care system in the context of a disaster management, (4) application of skills in interprofessional practice including effective interprofessional communication and leadership. These competences were broken down into specific learning outcomes. To achieve these competences, all students were given a Disaster Management Module comprising of three weeks of learning activities including a case study, expert lectures, independent learning, small group discussion with and without tutors, laboratory skills and self-directed learning and assessments were designed (Table 1). The module was developed by a teaching team consisting of academic staffs from those three programs (2 medical doctors, 1 nurse, 1 nutritionist).

2.3. Curriculum evaluation

An experimental study was conducted in 2011 for Year 3 students ($n = 72$) in the undergraduate programs of medicine, nursing, and health & nutrition who enrolled in FM UGM during 2008/2009. Students were randomly divided into 2 groups of subjects, the intervention group (IPE $n = 36$) and the control group (non-IPE $n = 36$). In the IPE group, medicine, nursing, and health and nutrition students were trained together. In the non-IPE group, the students from medicine, nursing, and health and nutrition programmes were trained separately. The materials, lecturers, and testing methods were similar in both groups. The proportions of male and female students on each groups were equal.⁷ The study was approved by the Ethical Committee of Universitas Gadjah Mada.

Data on students' knowledge in disaster management, their clinical skills, and their communication skills were collected from the assessments for each group (Fig. 1). We used 30 multiple choice questions (MCQ) and 3 essay questions to measure their knowledge level of disaster management (40%), emergency and communication skills (30%) and IPE (30%), through a pre- and post-test. The test questions were written by faculty experts in disaster management in line with their professional expertise. The experts wrote a number of questions in accordance with the competencies. Different questions were used for the pre-test and post-test. Students' clinical and communication skills were measured with an unpublished standardized and validated IPE checklist instrument which has been used in our skills laboratory. Additionally, skills were assessed by observation during a disaster simulation held in the skills laboratory.

Qualitative data were collected through log books (reflective forms) and a focus group discussion (FGD). The reflective form was designed to increase students' self awareness of the learning process and identify their own strengths and weaknesses for their improvement. Students were asked to write in the reflective journal daily. At the end of the study, all of the logbooks were collected to be analyzed. Logbooks were returned to the students with feedback

Download English Version:

<https://daneshyari.com/en/article/5569384>

Download Persian Version:

<https://daneshyari.com/article/5569384>

[Daneshyari.com](https://daneshyari.com)