Surjadi C, Jani D, Langoday UY. Geriatric curriculum at faculties of medicine in Indonesia (Case study). SEEJPH 2018, posted: 30 July 2018. DOI 10.4119/UNIBI/SEEJPH-2018-195

CASE STUDY

Geriatric curriculum at faculties of medicine in Indonesia

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Abstract

Aim: In Indonesia, the elderly population is growing rapidly and will comprise 35 million in 2035. The aim of this study was to assess how geriatric training is organised in medical faculties in Indonesia.

Methods: In 2017, we asked through questionnaires the vice deans of the faculties of medicine about their perceptions towards health and ageing and how they organized the geriatric training in their respective schools. Overall, we obtained data from 32 out of 71 (45.1%) faculties of medicine.

Results: All respondents perceived geriatrics as an important issue for faculties of medicine. Only 12 (37.5%) faculties employ geriatric specialists, 28 (87.5%) teach geriatrics at the undergraduate level, and 12 (40.6%) at postgraduate level, whereas 4 (12.5%) universities teach at specialty level. Conversely, at undergraduate level, only 18 (64.2%) faculties include the 'geriatric giants', and 5 (17.8%) include ageism. There are 13 (46.4%) geriatric classes implemented through skill laboratories, 5 (17.8%) through geriatric policlinics, and 4 (14.3%) through geriatric wards.

Conclusion: Attention to geriatric training among medical schools in Indonesia has to be improved. At national level, there should be a more specific formulation of geriatric competencies and how they can be operationalised. Geriatric training is recommended to prepare lecturers in medical faculties. Related to the content of aging curriculum, geriatric issues, attitudes towards aging, and ageism should be addressed.

Keywords: *faculty of medicine, geriatric competency, Indonesia, teaching geriatrics.*

Conflict of interest: None.

Introduction

In Indonesia, better health, due to improved economic and social conditions, has resulted in longer life and in consequence an ageing population. In 2010, there were 18.1 million elderly people (>60 years) in Indonesia. In the year 2035, this number is predicted to be around 48.2 million or, 15.8% of the overall population (1). The World Health Organization (WHO) strongly advocates for all future medical doctors the need to be well-trained in caring of older people (2).

Currently, students need to acquire knowledge about how to treat older people from an interdisciplinary point of view (2). Issues regarding education on geriatrics and the related competencies are also the concern of medical associations such as the Society for Family Physicians and the Association of Gerontology Higher Education (AGHE), while the Association of International Gerontology and Geriatrics (IAGG) pays more attention to specific themes as e.g. the relationship between generations, but also on advanced teaching methods (3-9). On the other hand, WHO develops manuals for primary care facilities which provide friendly services for the elderly (10).

Our aim was to assess how geriatric training is organised in medical faculties in Indonesia. More specifically, we asked the vice deans of academic affairs pertinent to the faculties of medicine in Indonesia about the way they organise training on geriatrics in their respective schools.

Methods

Based on the list of addresses and emails from deans' offices and the Ministry of Education, we sent a questionnaire by post, email, and by phone to secretariats of the vice deans for key academic affairs of all medical faculties in Indonesia.

The questionnaire developed for this study consists of two main instruments. The general questionnaire inquired about characteristics of the persons completing the questionnaire (including information on sex, education, age and belonging to the medical profession or not). The specific questionnaire included questions regarding their perception of problems concerning the health of elderly people, whether they have taught Geriatrics at undergraduate and postgraduate level and how they organised this training.

The 6-pages questionnaire included some open-ended options and had already been tried out at the dean's office of Atma Jaya University and at the Neurological Department and Internal Medicine Department there by lecturers responsible for geriatric topics to look for inconsistencies and problems of understanding. Based on this validation exercise, some revisions were done to make the questionnaire simpler and easier to be answered. For the current study, descriptive statistics are presented.

Results

We were able to get data from 32 out of 71 (45.1 %) faculties of medicine in Indonesia (Table 1). All respondents perceived geriatrics as an important issue for the faculties of medicine. Only 12 (37.5 %) faculties employ geriatric specialists, and 22 (68.8%) suggested that geriatrics should be integrated into the specialisation for internal medicine; 10 (31.3%) faculties consider that geriatrics is a discipline which needs participation from other medical disciplines. At present, 28 (87.5%) faculties teach geriatric topics at the undergraduate level but only 13 (40.6 %) schools teach this discipline at the doctoral level.

Table 1. Geriatric training at the faculties of medicine in Indonesia (N=32)

Variable	Number	Percentage
Perceived geriatrics should get attention in the medical faculty	32	100.0
Employed a geriatric specialist	12	37.5
Geriatrics should be integrated into the department of internal medicine	22	68.8
Geriatrics need participation of other disciplines	10	31.3
Training at undergraduate level	28	87.5
Training at doctoral level	13	40.6
Training at specialty level	4	12.5

For the undergraduate level, we asked whether the faculties have a specific objective related to geriatric training. Overall, there are 9 (32.1 %) schools which have developed a proper syllabus (Table 2). Related to specific issues of ageing, there are only 18 (64.3%) schools which include the 'geriatric giants', 5 (17.8%) include ageism and attitudes towards aging. In relation to the method of teaching geriatrics there are 13 (46.4%) classes supported by skill laboratories, 5 (17.8 %) through outpatient geriatric clinics, and 4 (14.3%) through geriatric wards.

Table 2. Teaching Geriatrics at the undergraduate level of medicine in Indonesia (N=28)

Present Situation	Number	Percentage
There is a syllabus on geriatrics	9	32.1
'Geriatric giants' have been taught	18	64.3
Ageism has been taught	5	17.9
Geriatrics include education in skill laboratories	13	46.4
Have a geriatric policlinic	5	17.8
Have a geriatric ward	4	14.3

Discussion

In Indonesia, at the national level, there are few standard sets of competencies for medical doctors, e.g. for dentists formulated in 2012 by the Indonesian Medical Council (11). Geriatrics are not specifically mentioned although students should be able to solve those problems of old age as part of their skills.

Curricula in Indonesia should be focused around the four pillars of learning i) *learning to know*, ii) *learning to do*, iii) *learning to live together*, and iv) *learning to be*. In an input-process-outcomes framework, curricular content, textbooks, and learning materials are among the major teaching inputs as a dimension of quality education (12). However, a policy framework is needed that encourages geriatric training formats but is missing in Indonesia. Examples of structured training and corresponding sets of competencies can be found in the international literature e.g. in Canada (4), The United States (13), or Taiwan (14): Taiwanese educators have developed and implemented several methods in the framework of a National Project for Excellence in Geriatric Care Education:

- Curricula development for innovative teaching and learning consisting of a) Curriculum development and goals b) Curricula content and certification, for undergraduate as well as for postgraduate programmes.

- Excellence in teaching and learning: a) Problem-based learning, b) Geriatric care practicum, c) Research practicum, d) Learning by visiting rounds.

In summary, it is recommended to include into the formal training by a gerontologist a clerkship in geriatrics which has to be supported at the national, the faculty and the individual level through national guidelines. In some American faculties of medicine, blended learning has been introduced with web-based modules, interactive videogames, and face to face learning such as ward rounds, case conferences, meet the team, community practice through nursing home and home visits (13).

In the United States it is recommended that nine or more geriatric physicians are employed at a faculty of medicine; this criterion was met in 30% of medical schools in 2000 and in 49% in 2010. The main topics taught included geriatric syndromes and geriatric assessment (15).

Minimum geriatric competencies for medical students are presented in Table 3. Four criteria were used as guiding principles:

i) Competencies should focus on issues that really matter to health outcomes of elderly people.

ii) Competencies should be discussed before the start of one's internship.

iii) The total number of content domains and competencies should be limited, with no more than 5-8 domains, and no more than 3-5 competencies in each.

iv) The competencies should be similar to quality indicators in that they are the 'floor' behaviours and could be taught and evaluated at any medical school (16).

Table 3. Minimum geriatric competencies for medical students

World Geriatric and Gerontology Association (17)	Canada (3)	United States (16)
1. Medication Management	1. Cognitive Impairment	1. Medication Management
2. Cognitive and Behavioural Disorders	2. Functional Impairment	2. Cognitive and Behavioural Disorders
3. Self Care Capacity	3. Falls Balance and Gate Disorder	3. Self Care Capacity
4. Falls, Balance, Gait Disorders	4. Medication Management	4. Falls, Balance, Gait Disorders
5. Health Care Planning and Promotion	5. Biological of Aging and Atypical Presentation of Diseases	5. Health Care Planning and Promotion
6. Atypical Presentation of Disease	6. Adverse Event	6. Atypical Presentation of Disease
7. Palliative Care	7. Urinary Incontinence	7. Palliative Care
8. Hospital Care For Elders	8. Transition of Care	8. Hospital Care For Elders
	9. Health Care planning	

Conclusion

Attention of geriatric training among medical schools in Indonesia should be improved. At national level there should be a more specific formulation on geriatric competency and how it could be implemented. Also, there should be advocacy and awareness campaigns. Geriatric training in medical faculties should include lectures and practical sessions. Related to the content of geriatric curricula, topics on 'geriatric giant', attitudes towards aging and ageism should be addressed.

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