

AN EVALUATION OF THE FINAL YEAR DENTAL STUDENTS' GERIATRIC ORAL HEALTH COMMUNITY PROGRAMME

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Abstract

The objective of this study was to evaluate the effectiveness of teaching-learning in geriatric oral health community programme of final year students, Faculty of Dentistry, Universiti Kebangsaan Malaysia. Small group geriatric oral health community programme formed part of the curriculum for final year students. Groups were facilitated to prepare an activity that will be carried out at community geriatric institutions. Group activities carried out required students to apply oral health planning and promotion concepts taught prior to the activity. At the end of an eight week preparation, students implemented a day program at the institution. The teaching learning effectiveness was evaluated using a self administered questionnaire measuring three segments: fulfillment of programme objectives, assessment of facilitators and programme processes, and overall satisfaction of the programme conduct. Data was collected two weeks after completion of the students' respective visits. Fifty out of 52 students (96.2%) responded. Of these, forty-nine students (98%) were either "somewhat satisfied" or "satisfied" with the programme conducted. Majority of the students agreed that the programme managed to sensitize them in having caring attitude towards the elderly; enabled better interaction with them and made the students realized the importance of teamwork in executing community project. Despite administrative weakness in conducting the program, students nevertheless agreed with the relevance and importance of exposure to community geriatric dental education in their curriculum.

Keywords: geriatric dentistry, undergraduate community programme, dental public health

INTRODUCTION

Aging in Malaysia

Like other developing countries, Malaysia is undergoing rapid economic development that has improved the quality of life of its people. Generally, life expectancy is longer now compared with the previous decade. Older persons will represent 9.8% of the population by 2020 with an annual growth rate of 4.4% (Rashid & Yahaya, n.d) . It is generally accepted that the elderly are less healthy than the young, hence an increase in the proportion of the aged group is associated with an increase in the prevalence of ill health. A number of problems are usually associated with old age such as physiological changes, memory deficits and altered eating habits. The welfare and well being of the elderly has always been a major concern in Malaysia.

Malaysia is one of the earliest countries in Asia Pacific region to have its own policy on older persons; the National Policy for Older Persons which was approved in October 1995 (Rani, 2007).

Geriatric Oral Healthcare in Malaysia

The oral health of elderly people in Malaysia is still far from optimal. Various oral health problems such as edentulism, missing teeth, caries, periodontal diseases and attrition impair oral function and affect their quality of life. It is expected that the elderly of the future will retain more of their natural dentition than their present cohort (Oral Health Division, Ministry Of Health Malaysia, 2002). This new elderly group will be more critical and more demanding of oral healthcare.

Geriatric Oral Health Curriculum in Malaysian Universities

Currently a specific Geriatric Oral Health (GOH) module is not included in any Malaysian dental schools. Not many studies have been done or published locally in this particular area. Given the expected increase in older population and the fact that dentist to population ratio is 1: 8586 (WHO, 2008), the need to develop awareness on the importance of providing some form of care for the geriatric population, among dental students is becoming increasingly important. In line with this, and the objectives and strategies laid by the National Policy for Older Persons as well as the Guidelines on Oral Healthcare for the Elderly in Malaysia, the Dental Faculty of Universiti Kebangsaan Malaysia has reviewed the undergraduate curriculum which emphasizes on GOH education and promotion.

Using the oral health promotion concept, a GOH Community Programme was mandated to all final year students as part of their reviewed curriculum. This programme has been implemented since 2005, and has never been evaluated

The GOH Community programme incorporates concepts and processes of health promotion, team dynamics, programme planning and caring attitude towards the elderly. The concepts and theories of geriatric dentistry have been taught through series of lectures to the students since year three of the dental programme. In their final year, students were then divided into small groups and facilitated to prepare for a day programme that will be carried out at selected community geriatric institutions.

This year, four community geriatric institutions around Klang Valley were selected. One facilitator was assigned to each group. Group activities carried out required the students to apply oral health planning and promotion concepts that they have learned in theory. At the end of an eight week preparation, students implemented a day programme at the institution. The programme consisted of educational and promotional activities such as dental check up, oral hygiene instruction and oral health talk to the elderly and their caregivers.

Dental graduates who are able to work competently, can be a good reflection on the success of the dental education they receive. Shah (2005) in his report commented that lack of training results in poor understanding of special needs of the elderly in young dental graduates. Without adequate training and personal experience of growing old, it is difficult for them to understand the complex needs of the elderly. Therefore it is important for the Faculty to be able to assess their students' competency through continuous evaluation of the programmes.

AIM

The objective of this study is to evaluate the effectiveness of teaching-learning in geriatric oral healthcare community programme for final year students of the Faculty of Dentistry, Universiti Kebangsaan Malaysia, through the students' perception.

METHODOLOGY

This study was conducted in 2008, on the third batch of final year dental students who went through the programme. Due to scarcity of similar programme evaluation studies conducted and published in Malaysia, the questionnaire had to be developed based on literatures available (Husna, Robaiyah & Tanti, 2007) (Ishak A.R., Raja Latifah R.J., Nasruddin J. Abu Hassan MI, & Norintan A.M., 2008). Major modification was done to cater to our need. The teaching learning effectiveness was evaluated from a summative perspective using a self administered questionnaire measuring three segments: fulfillment of programme objectives; assessment of facilitators and programme processes; and overall satisfaction of the programme conduct..

In the validation process of this study, a copy of the questionnaire was given to two Dental Public Health Specialists to go through it carefully and to ascertain the appropriateness and adequacy of the instrument..

A cross-sectional study was done using self administered questionnaire comprising 4 segments: demographic variables; fulfillment of programme objectives; assessment of programme processes & facilitators; and overall evaluation of the programme.

Demographic variables included gender and location of old folks home visited. No other variable was included due to the fact that all subjects were final year students of UKM.

For Fulfillment of Programme Objectives and Assessment of Programme Processes & Facilitators, the instrument was structured in the *modified Likert* fashion, on a 4 – point scale, ranging from “strongly agree”, through “agree”, “disagree” to “strongly disagree”. Subjects were then instructed to respond to their degree of agreement with the statements contained in the instrument. The 4 point modified Likert scale was used to force the students to choose side, avoiding them from choosing the midpoint when answering the questions, in order to better evaluate the programme. There are three and eight questions in these segments respectively.

Three questions regarding overall satisfaction and outcome of the programme conducted were asked in the Overall Evaluation segment. A space for students to comment for programme improvement was also provided.

Fifty out of 52 students responded with a response rate of 96.2%. The data acquired was then analysed using SPSS version 16.0.

Descriptive statistics were used. Frequency and percentages were used for categorical variables. Mean and standard deviations were used for continuous variables. Chi square test was used for correlational analysis with a significance level at $p < 0.05$.

RESULTS

Demographically, out of 50 students who responded to the survey, only 12 (24%) were male. The Golden Care Nursing Home, Petaling Jaya was visited by the most number of students which was 18 (36%), while equal distribution of students (20% to 22% each) was noted for the other three old folks homes.

The second segment evaluated the fulfilment of programme objectives. Ninety eight percent (98%) “strongly agreed” or “agreed” that teamwork is important in the conduct of GOH community program while 86% of the students positively felt they were able to interact and give oral health education better in the elderly’s own environment rather than the clinic. Majority of the students (98%) also “strongly agreed” or “agreed” that the module sensitize them in adopting a caring attitude to the elderly.(Table 1)

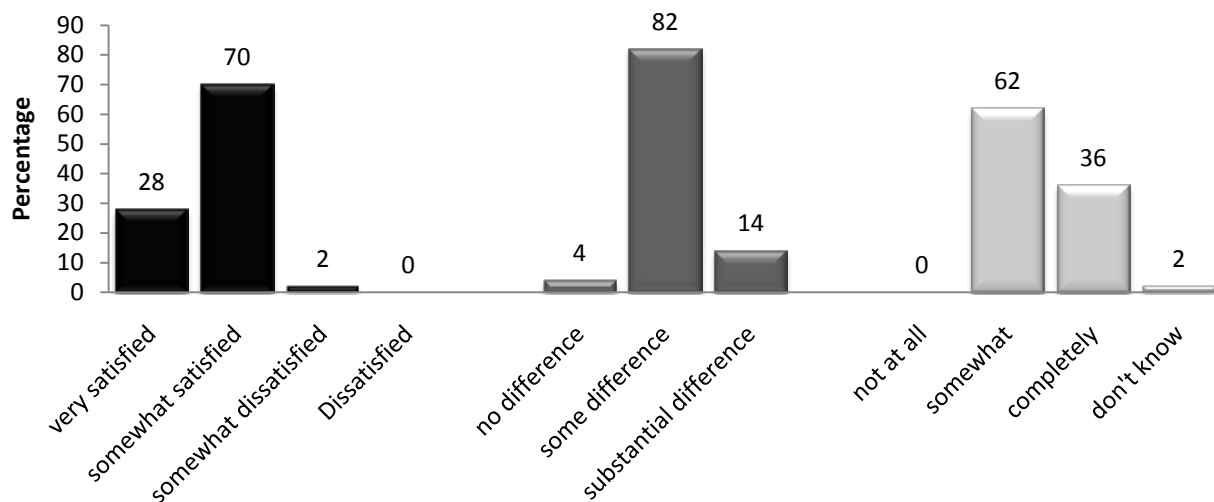
Out of eight items assessed on facilitators and programme processes, all students either “strongly agreed” or “agreed” only on two items: ‘the objectives of the programmes were clearly stated’ and ‘financial support should be given to participants to help carry out the programme’. While majority of the students “strongly agreed” or “agreed” that the module was well organized (88%); and relevant (98%) to dental students; and enabled them to acquire new skills relevant to their working environment later (96%), 12% of the students however still felt it was not done in an interesting manner. Only a few students complained of having logistic problem (14%). However fifty percent of the students agreed the Faculty need to look into providing more financial support for this programme. Nevertheless, it is encouraging to note their positive opinion on facilitators (92%) assigned to them. (Table 1)

Table 1 Fulfilment of Programme Objectives & Assessment of Programme Processes and Facilitators

Programme Objective (Question 1-3) Assessment of Programme and Facilitator (Question 4-11)		n (%)			
		Strongly Agree 1	Agree 2	Disagree 3	Strongly Disagree 4
1	Recognizing the importance of teamwork in planning, implementing and evaluating a geriatric community programme	35 (70)	14 (28)	1 (2)	0
2	Interacting with and providing oral health education for the elderly in their own environment instead of dental clinic	12 (24)	31 (62)	7 (14)	0
3	Adopting a caring attitude towards the elderly	15 (30)	34 (68)	1 (2)	0
4	The objectives of the programme were clearly stated.	21 (42)	29 (58)	0	0
5	The programme was handled in an organized and interesting manner.	10 (20)	34 (68)	6 (12)	0
6	The programme was relevant to me as a dental student.	21 (42)	28 (56)	1 (2)	0

7	Through this programme, I acquired new skills that I can apply later to my work.	19 (38)	29 (58)	2 (4)	0
8	I was satisfied with the materials for Dental Screening and Oral Health Education provided for this programme.	12 (24)	27 (54)	10 (20)	1 (2)
9	I had no difficulty regarding logistic throughout this programme.	5 (10)	38 (76)	6 (12)	1 (2)
10	Financial support should be given to help participants carry out the programme better.	40 (80)	10 (20)	0	0
11	The facilitators showed sensitivity to my issues, needs, and concerns.	8 (16)	38 (76)	4 (8)	0

The last segment measures the overall evaluation of the programme conduct. On overall satisfaction of the programme, 49 (98%) students answered that they were either very “satisfied” or “somewhat satisfied”. Only two (4%) of the students did not expect any difference in planning, implementing and evaluating effective geriatric community programme. Eighteen (36%) students completely felt that they will be able to apply the ideas and lessons learnt from this programme into their clinical practice. The majority, 31 (62%) students felt that they somewhat have the ability to apply the ideas while one person answered that he/she didn’t know whether he/she is able to do so. (Figure 1)



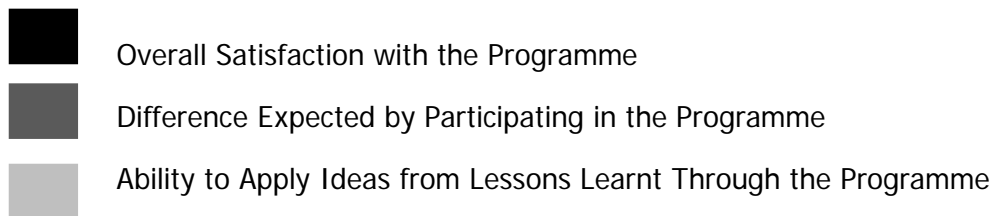


Figure 1 Overall Evaluation of the Programme Conduct

Cronbach's Alpha value for eleven items in segment two and three was 0.8. As for the relevance between gender and items assessed from segment two through segment four as well as between the place visited and items assessed from segment two through segment four, no significant difference was found.

DISCUSSION:

This study represents a preliminary attempt to evaluate the outcome of the GOH community programme on the final year students of the Dental Faculty, UKM. Through this survey, we were able to find out the effectiveness of the newly implemented curriculum on geriatric dentistry from the students' points of views. Generally, all objectives of the programme were met. However, 14% of the students found that interacting with the elderly was difficult to do. According to the comments available, the reasons they felt that way is due to language barrier, where the students could only speak Malay or English where the elderly could speak neither. This is a common problem in a multiracial country like Malaysia. Failure to communicate in a language commonly understood by both patient and healthcare provider may result in a lot of negative effects such as a decrease in quality of care and patient satisfaction. Another negative effect is the effect on provider effectiveness and satisfaction where it makes it difficult for healthcare personnel to provide care of a professional standard, thus increasing their exposure to the risk of liability (Bowen, 2001). Another study done by Husna, Robaiyah and Tanti (2007) strengthened this argument when students highlighted communication as a barrier when communicating with the elderly. Although no specific scientific study on language barrier and its costs and effects on healthcare have been done in Malaysia, to enhance delivery of health care, providing interpreter services was found to be a financially viable method for patients with limited English proficiency in America. Patients who used the interpreter services received significantly more recommended preventive services, made more office visits, and had more prescriptions written and filled (Jacobs, Shepard, Suaya & Stone, 2004). Patients have better access to care when they can communicate well with their care provider.

There were also issues on the way the programme was run. Some students were not satisfied with the help provided by the Department especially in terms of patient education material. The Department provided materials in the form of educational paper prints as well as models to enhance the effectiveness of dental health education to patients. However, students were encouraged to come up with their own innovative and creative ways to better deliver their ideas to the target group. This is also part of the objective where the students were expected to develop skills in planning, implementing and working in group. As much as the students realised the importance of team work in planning and implementing the programme, they still found difficulties carrying it out. This shows that a curriculum shaped this way instead of just didactic learning can naturally make the students learn through real experience, hence, promoting

creative thinking and solutions finding on how to tackle problems such as limited resources. It is a good way to prepare them for the real world where not everything is as ideal as what is taught in dental schools..

Training in geriatric dentistry should enable the dental surgeon to understand and empathise with the psychosocial behaviour of the elderly (Shah, 2005) , as well as their physical limitations. Geriatric Dental Education varies throughout the world. In Europe, 93 % dental schools teach at least some aspects of geriatric dentistry. Over one-third of schools (39%) indicated that they were planning to expand the teaching of geriatric dentistry within their school (Preshaw & Mohammad, 2005). In the United States of America, in 1976, no schools required geriatric dentistry as part of their undergraduate curriculum although five percent were providing a specific course. However, in 2001, a major improvement was seen as 98 percent of schools had required didactic teaching in geriatric dentistry and all schools taught at least some aspect of geriatric dentistry (Mohammad, Preshaw & Ettinger, 2003). A study done in India revealed that the undergraduate curriculum in the country does not have any significant component of geriatric dentistry. The study also concluded that it is emphasized that geriatric dentistry should be included in each of the pre-clinical, paraclinical and clinical subjects at the undergraduate level (Shah, 2005).

Providing care to increasing numbers of older adults will present major challenges to health care providers including dentists. Dental schools in a number of countries have developed courses in geriatric dentistry to educate students about the oral health needs of the elderly and to give them experience in the management of older patients. As for Malaysia, currently there is no specific Geriatric Oral Health (GOH) module included in any Malaysian dental schools. Given the expected increase in older population and the fact that dentist to population ratio is still high, therefore it is vital to develop awareness among dental students on the importance of providing some form of care as well as giving oral health education and promotion to the geriatric population and their caregivers. In Faculty of Dentistry, UKM, GOH is taught as part of a module comprising series of lectures and field visit to geriatric institutions. With the advancement of technology and increase of dental manpower in the future, the module needs to be developed and further improved. This includes expanding the module by integrating clinical component in geriatric dentistry with collaborations from Prosthodontic department, plus, enhancing and strengthening communication skills with geriatric dental patients for the students. However, a more thorough study with involvement of more batches of students who have undergone the programme should be carried out to get a clearer picture of the outcome and to further assess the effectiveness and ways to improve this module in the future.

CONCLUSION

Through this study, we found out that majority of the students agreed all three programme objectives were achieved. Introduction of a community based geriatric dentistry learning module in addition to the theory received in Year 3 dental students is relevant and important in sensitizing and enhancing students' understanding on the needs of the elderly. There are several supporting aspects which could be improved in order for the students to run the programme better such as financial support in preparing for the programme, better logistic arrangement and improvement of the oral health promotion material provided by the department. With current limitation of resources, it may be too early to engage clinical components into the module, but it is something that should be taken into account in future planning and development of geriatric dentistry teaching and learning in the Faculty. While students were positive about their experience with the programme, the Faculty will need to look

into improving the administrative aspects of the program conduct. However, a more elaborate study need to be done to asses and further evaluate this programme .

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REFERENCES

- Bowen S. 2001. Language Barriers in Access to Health Care. Health Canada ISBN: 0-662-30538-8
- Husna, A. A., Robaiyah, K. & Tanti, I.R. Dental Students' Knowledge and Perception of Elderly in Relation to Geriatric Dentistry Training. *Medicine & Health* 4(2): 76-83.
- Ishak A.R., Raja Latifah R., Nasruddin, J., Abu Hassan MI. & Norintan A.M.v2008. Assessing the Competency of University of Malaya Dental Graduates: Employers' and Graduates' Perceptions. *Journal of Dental Education* 72(3): 364-369.
- Jacobs, E.A., Shepard, D.S., Suaya, J.A., & Stone, E.L 2004. Overcoming Language Barriers in Health Care: Costs and Benefits of interpreter services. *American Journal of Public Health* 94: 866–869
- Mohammad, A.R., Preshaw, P.M. & Ettinger, R.L., 2003. Current status of predoctoral periatric geriatric education in U.S. dental schools. *Journal of Dental Education* 67: 509-514.
- Oral Health Division, Ministry of Health Malaysia 2002. Guidelines on Oral Health Care for the Elderly in Malaysia.
- Preshaw, P. M. & Mohammad, A. R. 2005. Geriatric dentistry education in European dental schools, *European Journal of Dental Education* 9: 73–77.
- Rani, Z.A. 2007. Social Welfare Policies And Services For The Elderly: A Country Report (Malaysia): for The 5th ASEAN & Japan High Level Officials Meeting on Caring Societies: Collaboration of Social Welfare and Health Services, and Development of Human Resources and Community ~ Community Services for the Elderly ~27 – 30 August 2007, Tokyo, Japan. Retrieved from Japan International Corporation of Welfare Services. <http://www.jicwels.or.jp> [26th May 2009]
- Rashid, S.N.S.A. & Yahaya, N. (n.d.). Roles and Challenges in Providing for the Well Being of the Older Persons.<http://www.jkm.gov.my/jkm/> [26th May 2009].
- Shah, N. 2005. Short report, Need for gerodontology education in India. *Gerodontology* 22, 104–105
- WHO (2008). Oral Health Country Profile Programme. <http://www.whocollab.od.mah.se/wpro/malaysia/data/malaysiamanpow.html#PopRat> [21st January 2010

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