

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 the teaching-learning process involved in the geriatric oral health community programme for final year dentistry students which was introduced by the Faculty of Dentistry, Universiti Kebangsaan Malaysia. The geriatric oral health community programme formed part of the curriculum for final year students and involved the division of the students into small groups. The groups were facilitated by their instructors to prepare an activity which was to be conducted at various community geriatric institutions. These group activities required the students to apply the oral health planning and promotion concepts they had been taught prior to the activity. At the end of an eight-week long preparation period, the students implemented a day-long programme at the institution. The effectiveness of the teaching-learning process involved in the programme was evaluated using a self-administered questionnaire measuring three segments: fulfilment of programme objectives, assessment of facilitators and programme processes and overall satisfaction regarding the conducted programme. Data was collected two weeks after the completion of each student group's visit. Fifty of the total fifty-two participating students (96.2%) responded. Of these, forty-nine students (98%) were either 'somewhat satisfied' or 'satisfied' with the programme conducted. The majority of the students agreed that the programme had managed to achieve the following objectives: (1) sensitized them towards harbouring a caring attitude towards the elderly, (2) enabled them to better their interaction with the elderly, and (3) made them realize the importance of teamwork in executing a community project. Despite the certain administrative weaknesses encountered in conducting the program, the students agreed with the relevance and importance of the inclusion of community geriatric dental education in their curriculum.

Keywords: Geriatric Dentistry, Undergraduate Community Programme, Dental Public Health

INTRODUCTION

Like other developing countries, Malaysia is undergoing rapid economic development. This development has improved the quality of life of its people. Generally speaking, life expectancy in Malaysia is longer today than it was in the previous decade. It has been estimated that 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, such as physiological changes, memory deficits and altered eating habits, are usually associated with old age. The welfare and well-being of the elderly has always been a matter of major concern in Malaysia. Malaysia is one of the first countries in the Asia Pacific region to have formulated its own policy for older persons: the National Policy for Older Persons. This policy was approved by the Malaysian parliament in October 1995 (Rani, 2007).

In general, 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 their oral function as well as affect their quality of life. However, 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 as well as more demanding of oral healthcare.

Currently, no specific Geriatric Oral Health (GOH) module has been included in any of Malaysia's dental schools. Not many studies on this topic have been undertaken or published locally. Given the expected increase in the older population and the fact that the dentist-to-population ratio is 1:8586 (WHO, 2008), the need to develop awareness among dental students on the importance of providing some form of dental care to the geriatric population is becoming increasingly important. In line with this need 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 revised the undergraduate curriculum so that it now emphasizes GOH education and promotion.

Using the oral health promotion concept, a GOH community programme was mandated to all final year dentistry students as part of their revised curriculum. This continuing programme was implemented in 2005, and has never been evaluated. The programme incorporates the concepts and processes of health promotion, team dynamics, programme planning and a caring attitude towards the elderly. The concepts and theories of geriatric dentistry have been taught through a series of lectures to the students since year three of the dental programme. In their final year, the students are divided into small groups and instructed to prepare for a day-long programme which is to be carried out at selected community geriatric institutions.

This year, four community geriatric institutions located around Klang Valley were selected. One facilitator was assigned to each group. The group activities the students were to participate in required them to apply the oral health planning and promotion concepts which they had learned in their theory classes. At the end of an eight-week long preparation period, the students implemented a day-long programme at the institution. The programme consisted of educational and promotional activities such as dental check ups of the elderly and talks on oral hygiene and oral health directed at both the elderly and their caregivers.

Considering the fact that geriatric oral health as a specific module has been introduced fairly recently in Malaysia's local dental faculty curriculum, it was not easy to access any published or unpublished research on the subject. Only one such study was found: Husna, Robaiyah and Tanti (2007), which gauged 83 dental students' knowledge and perception of the elderly in relation to geriatric dentistry training. The study results suggested the need to emphasize certain issues in the geriatric dentistry curriculum like the psychological and behavioral aspects of older people. The results of a study conducted by Fabiano, Waldrop, Noohajski, Davis and Goldberg (2005) suggested that positive interactions with older adults by health care providers may depend more on the latter's positive perceptions about older people than on an increase in their knowledge about aging. We at the Faculty of Dentistry believe that it is part of our

responsibility towards educating the future dentists of Malaysia to provide them with the aforementioned positive experience through the newly revised curriculum. This statement is further supported by another study done by Ettinger, McLaren and Jakobsen (1990), which hinted at evidence that dentists who gain experience in remote locations—particularly nursing homes—outside the dental school environment as part of their dental training are more likely to carry out regular comprehensive care for the elderly in a nursing home or similar institution.

Dental graduates who are able to work competently can be a good reflection of the success of the dental education they receive. Shah (2005) in his report commented that lack of training results in poor understanding in young dental graduates regarding the special needs of the elderly. Without adequate training and in the absence of any 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 continual evaluations of their programmes.

RESEARCH OBJECTIVE

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

METHODOLOGY

This study was conducted in 2009 on the third batch of final year dental students who undertook the programme. Due to scarcity of similar programme evaluation studies conducted and published in Malaysia, the questionnaire had to be developed on the basis of the available literature on the topic (Husna, Robaiyah & Tanti, 2007) (Ishak A.R., Raja Latifah R.J., Nasruddin J. Abu Hassan M.I. & Norintan A.M., 2008). Major modifications were carried out in accordance with our needs. The effectiveness of the teaching-learning process was evaluated from a summative perspective using a self-administered questionnaire measuring three segments: fulfilment of programme objectives, assessment of facilitators and programme processes, and overall satisfaction with the conducted programme.

In the validation process of this study, a copy of the questionnaire was given to two dental public health specialists and they were requested to go through it carefully and ascertain the appropriateness and adequacy of the instrument. A cross-sectional study was carried out using a self-administered questionnaire comprising four segments: demographic variables, fulfilment of programme objectives, assessment of programme processes and facilitators, and overall evaluation of the programme. The demographic variables included the gender of the surveyed students and location of the old folks' home they had visited. No other variable was included due to the fact that all subjects were final year students of UKM.

For the 'fulfilment of programme objectives' and 'assessment of programme processes and facilitators' segments, the instrument was structured in the *modified Likert* fashion on a 4-point scale, ranging from 'strongly agree', 'agree', 'disagree' to 'strongly disagree'. The subjects were then instructed to indicate their degree of agreement or disagreement with the statements contained in the instrument. In order to better evaluate the programme, the 4-point modified

Likert scale was used to force the students to choose a particular side and prevent them from choosing the mid-point when answering the questions. These segments comprised three and eight questions, respectively. Three questions regarding the overall satisfaction with the outcome of the conducted programme were asked in the 'overall evaluation' segment. A space was also provided for the students to provide tips towards programme improvement. Fifty of the total fifty-two participating students responded, thus bringing the response rate to 96.2%. The collected data 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. A Chi square test was used for conducting a correlational analysis with a significance level of $p < 0.05$.

RESULTS

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

The second segment evaluated the fulfilment of the programme's objectives. Of all the respondent students, 98% chose the 'strongly agree' or 'agree' options in response to the item stating that teamwork is important in the conduct of the GOH community program, while 86% positively felt that they were better able to interact with and impart oral health education to the elderly in the elderly persons' own environment rather than in the clinic. The majority of the students (98%) also opted for the 'strongly agree' or 'agree' options in response to the item stating that the module sensitized them with regard to adopting a caring attitude towards the elderly (Table 1).

Of the eight items assessed in connection with the facilitators and programme processes, the students chose either the 'strongly agree' or 'agree' options only with regard to two items: 'the objectives of the programmes were clearly stated' and 'financial support should be given to participants to help them carry out the programme'. While the majority of the students ticked the 'strongly agree' or 'agree' options to the items stating that the module was well organized (88%), relevant to dental students (98%) and enabled them to acquire new skills relevant to their working environment later (96%), 12% of the students still felt, however, that it was not done in an interesting manner. Only a few students complained of having logistical problems (14%). However, 50% of the students agreed that the faculty needed to look into providing more financial support for this programme. Nevertheless, it is encouraging to note their positive opinion (92%) of the facilitators assigned to them (Table 1).

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

Programme Objectives (Questions 1–3) Assessment of Programme and Facilitators (Questions 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 to the elderly in their own environment instead of in a 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 which I can later apply in my work.	19 (38)	29 (58)	2 (4)	0
8	I was satisfied with the materials related to Dental Screening and Oral Health Education included in this programme.	12 (24)	27 (54)	10 (20)	1 (2)
9	I faced no logistical difficulty throughout this programme.	5 (10)	38 (76)	6 (12)	1 (2)
10	The faculty should provide financial support to help the 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 measured the overall evaluation of the conducted programme. Regarding overall satisfaction with 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 the planning, implementation and evaluation of effective geriatric community programmes in the future. Eighteen (36%) students completely felt that they would be able to apply the ideas and lessons learnt from this programme into their clinical practice. The majority of students, 31 (62%), felt that they somewhat possessed the ability to apply the ideas while one person answered that he/she did not know whether s/he would be able to do so. (Figure 1)

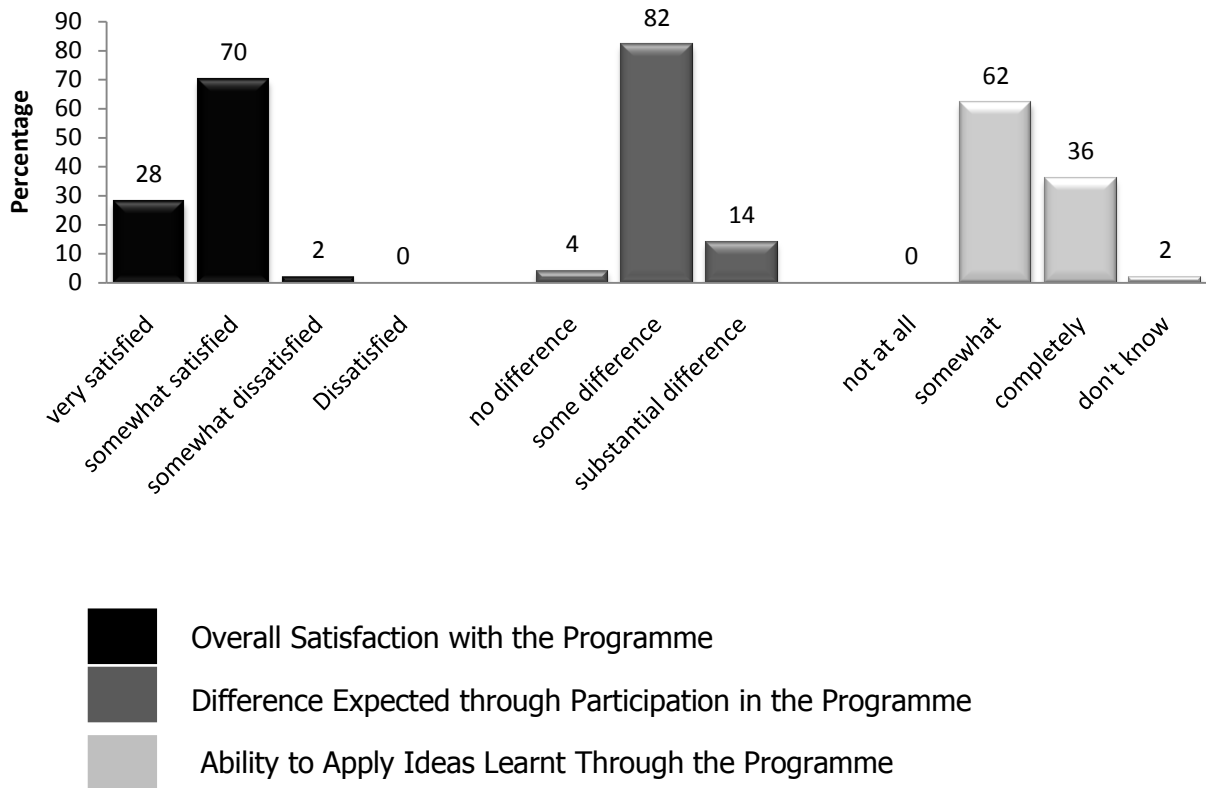


Figure 1 Overall Evaluation of the Conducted Programme

The Cronbach's Alpha value for the eleven items in segments 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 by eliciting feedback from the final year students of the Dental Faculty, UKM, through a survey. Through this survey, we were able to ascertain the effectiveness of the newly implemented curriculum on geriatric dentistry from the students' points of view. Generally, all the objectives of the programme were met. However, 14% of the students found interacting with the elderly to be a difficult task. According to the comments available, one of the reasons they felt that way was the language barrier, since these students could only speak Malay or English while the elderly could speak neither. This is a common problem in a multiracial country like Malaysia. Failure to communicate in a language understood by both patient and healthcare provider may result in a lot of negative effects such as a decrease in the quality of care and patient satisfaction. Another negative effect is the effect on provider effectiveness and patient satisfaction as 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 undertaken by Husna, Robaiyah and Tanti (2007) strengthened this argument, as in this study

as well, the students highlighted language as a barrier to communicating with the elderly. Although no specific scientific study on the language barrier and its costs and effects on healthcare has been conducted in Malaysia, a study carried out in America has concluded that providing interpreter services for patients with limited English proficiency enhances the delivery of health care as it was observed in the course of the study that patients who used the proffered interpreter services received significantly more recommended preventive services, made more office visits and had more prescriptions written and filled (Jacobs, Shepard, Suaya & Stone, 2004). It can thus be concluded that patients have better access to care when they can communicate well with their care provider.

There were also certain issues regarding the way the programme was run. Some students were not satisfied with the help provided by the department, especially in terms of the patient education material. The department provided materials in the form of educational paper prints as well as models to enhance the effectiveness of the dental health education provided to patients. However, the students were encouraged to come up with their own innovative and creative ways to better deliver their ideas to the target group. This strategy formed a part of the programme's objective of helping the students develop the skills related to planning, implementing and working in group. A curriculum which is formulated in this way instead of one which just comprises didactic learning can naturally make the students learn through real experience, hence promoting creative thinking on their part and aiding them in arriving at solutions to 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 dental surgeons to understand and empathise with the psychosocial behaviour of the elderly (Shah, 2005), besides sensitizing them to the latter's physical limitations. GOH education varies throughout the world. In Europe, 93% of dental schools include at least some aspects of geriatric dentistry in their curriculum. Over one-third of these schools (39%) have indicated that they are planning to expand the teaching of geriatric dentistry within their curriculum (Preshaw & Mohammad, 2005). In the United States of America, in 1976, no schools included geriatric dentistry as part of their undergraduate curriculum although 5% provided a specific course. However, in 2001, a major improvement was seen, as 98% of these schools had now introduced didactic teaching in geriatric dentistry and all schools taught at least some aspect of geriatric dentistry (Mohammad, Preshaw & Ettinger, 2003). A study conducted in India revealed that the undergraduate dentistry 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 an 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 provide them with 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 school. Given the expected increase in the country's older population and the fact that the dentist-to-population ratio is still high, developing awareness among dental students on the importance of providing some form of care as well as of dispensing and promoting oral health education in the geriatric population and their caregivers is of vital importance. In the Faculty of Dentistry, UKM, GOH is taught as part of a module comprising a series of lectures and field visits to geriatric institutions. This model needs to be developed and further improved to keep pace with the advancement of technology and increase of dental manpower in the future. One of the ways of doing this would be expanding the module by integrating clinical components in

geriatric dentistry with collaborations from the prosthodontic department, in addition to enhancing and strengthening the students' communication skills vis-à-vis geriatric dental patients. However, a more thorough study involving more batches of students who have undergone the programme should be carried out in the future to get a clearer picture of the outcome of the module and to further assess its effectiveness and come up with ways to improve it.

CONCLUSION

Through this study, we found that the majority of the surveyed students agreed that all the three programme objectives had been achieved. The introduction of a community based geriatric dentistry learning module to supplement the theory instruction imparted to year three dental students is relevant and important towards sensitizing and enhancing the students' understanding of the needs of the elderly. There are several supporting aspects which could be improved to aid the students in running the programme better, such as the provision of financial support towards programme preparation, better logistical arrangement and improvement of the oral health promotion material provided by the department. With the current limitation on resources, it may be too early to incorporate clinical components into the module, but it is something which should be taken into account in the future planning and development of geriatric dentistry teaching and learning in the faculty. While the students participating in the programme were positive about their experience vis-à-vis the programme, it was clear that the faculty needs to concentrate upon improving the administrative aspects of the programme. However, a more elaborate study is needed for assessing and further evaluating this programme.

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