

Developing a curriculum map for suicide prevention in geriatric education. Preventing suicides among elderly

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ABSTRACT

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Nowadays, using curriculum mapping is dramatically increased in planning education programs of medical faculties in the world. The aim of present study was to develop a curriculum map for geriatric education after analyzing mostly seen forensic health problems in elderly. In Izmir Forensic Group Presidency, characteristics of geriatric age group autopsies were evaluated retrospectively between January and December 2006. We identified suicide as one of the most predominant health problems and developed a curriculum map for geriatric education for prevention of elderly suicide. Analysis of the total 1595 patients, 150 (9.4%) were in the geriatric population. 95 patients (63.3%) were male (mean age 73.3±6.5), and 55 (36.7%) were women (mean age 76.2±7.2). The origins of deaths were as follows; natural (n=67, 44.7%), suicide (n=22, 14.7%), home accidents (n=16, 10.7%), homicide (n=12, 8%), traffic accidents (n=11, 7.3%) unidentified (n=21, 14%). We gave high priority in the interest of designing a curriculum map for preventing suicide deaths in elderly. We emphasize that development of education programs for prevention of forensic geriatric deaths (suicides, accidents, etc.) will be increasingly needed in 21st century. Development of new theories and concepts in designing education programs in the field of geriatrics has forced medical educators to update their geriatrics curriculum plans. Present study addresses how to design a curriculum map as a reference in planning medical education programs on different emerging geriatric issues.

1. Introduction

When we consider rapidly growing elderly population in the world, it is essential to develop a contemporary geriatric education curriculum for medical faculties (Keller et al., 2002; Rubin et al., 2003; Bartram et al., 2006). In the light of current studies for documenting the situation of geriatric education, there is a general agreement within today's medical education community that focuses attention on importance of adequate geriatrics training of future doctors with new learning concepts (Rubin et al., 2003; Prideaux, 2007). In designing, updating and restructuring geriatric curriculum, we have to take into consideration the developments in the field of medical education (Michel et al., 2008). "Basic

Medical Education for the Accreditation Certificate" was established and fundamental principles of training programs for medical faculties have been identified collaboratively by the World Health Organization and the World Federation for Medical Education (World Federation for Medical Education, 2005). For standardization of education activities in medical faculties around the world, it was emphasized that the programs must include data about mission, assessment methods, academic staff, learning resources, outcomes of the program and feedback (Jacobs, 1997).

These principles were first underlined for k-12 schools at the end of 1990s and in the early 2000s, curriculum maps were started to be used in the educational programs of

medical faculties (Jacobs, 1997). It was highlighted that a curriculum map designed for medical education had to include information about expected learning outcomes, curriculum content and assessment methods, learning opportunities, learning location, resources, timetable, staff, curriculum management and students (Harden, 2001). In defining curriculum content, the analyzing of health problems in target population can be the first step in development process (Kern et al., 1998). The aim of our study is to identify priority areas in geriatric education after doing a detailed analysis of forensic geriatric deaths and designing a curriculum map for planning the education for preventing health problems in elderly.

2. Methods

Izmir is one of the most developed cities in Turkey and has a population of 3 million. Izmir Forensic Group Presidency is serving for whole Aegean Region of Turkey. In present descriptive study, autopsy reports of geriatric forensic deaths were evaluated retrospectively at Morgue Department of Izmir Forensic Medicine Group Presidency from January 1, 2006 to December 01, 2006. The study was approved by the scientific committee of the Council of Forensic Medicine of Turkey. The origins (accident, suicide, homicide) of forensic deaths evaluated retrospectively. All data obtained from the study were statistically evaluated with X² Pearson and Fisher exact test. P values <0.05 were considered as significant.

3. Results

Analysis of the 1595 patients, 150 (9.4%) were in the geriatric population. 95 patients (63.3%) were male (mean age 73.3±6.5), and 55 (36.7%) were women (mean age 76.2±7.2). The origin of deaths were as follows; natural (n=67, 44.7%), suicide (n=22, 14.7%), home accidents (n=16, 10.7%), homicide (n=12, 8%), traffic accidents (n=11, 7.3%) unidentified (n=21, 14%) (Fig 1).

Suicide was identified as one of the most predominant health problems in geriatric age group. A curriculum map for geriatric education was developed and presented for prevention of elderly suicide.

In curriculum mapping, the substantive information contained in the curriculum must be presented in learning content part (Prideaux, 2000; Roger and Mark, 2007). In present study, the topic within medical education about preventing geriatric suicide was structured. It is emphasized that a medical curriculum must provide a program of study for graduates for having adequate knowledge, skills, professional behaviors and attitudes necessary to enter the medical practice like clinical skills, practical procedures, patient investigation and communication skills (Prideaux, 2000; Prideaux, 2007). All responsibilities in a medical faculty are rationalized to the point where each student will have the necessary expertise to do a particular ability or skill. For this reason, presenting learning outcomes has certain advantages, notably for students and educators (Harden, 2001; Prideaux, 2007). It is emphasized that geriatric age group people have higher rates of suicide and they often do not directly report thoughts of suicide, which can impede prevention efforts (Heisel et al., 2010). It is implied that the majority of older adults who die by suicide have seen a primary care physician in preceding months (Nordentoft, 2007). Important

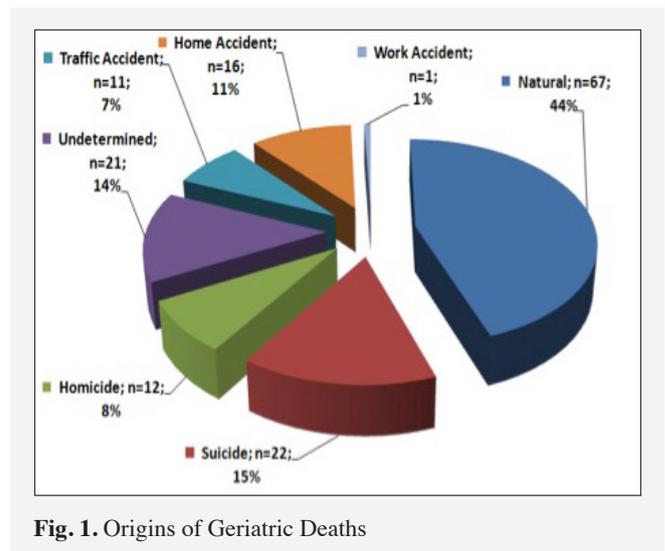


Fig. 1. Origins of Geriatric Deaths

learning outcomes of recent curriculum map are as follows; describing the risk factors of suicide and several primary prevention strategies in elderly, describing characteristics of bipolar disorder, dementia, and geriatric schizophrenia, demonstrating an ability to identify the risk factors of suicide among older adults, demonstrating an ability to diagnose and adequately treat older adults with depression and suicidal risk in primary medical practices (Pearson and Brown, 2000; Goldsmith et al., 2002). Another aspect of curriculum mapping is learning opportunities: All educational activities should be defined to the point how learning activities are given to students for providing efficiency and cost-effectiveness in medical education (e.g., Lecture, drama/ role-play, problem based, case study) (Prideaux, 2000; Harden, 2001) We chose computer-based learning as one of the learning opportunities in the curriculum map for allowing distance learning in medical education. It is necessary for curriculum planners to maintain adequate place for education because of the need to have an adequate teaching method in a proper place like presentation hall, library, computer laboratory, e-learning resource area, hospital ward. This adequate educational atmosphere is emphasized as learning location that would also facilitate rational evaluation of student outcomes (Harden, 2001; Prideaux, 2007). Learning resources as books, simulation programs, lecture notes, models must also be stated in a medical curriculum (Jacobs, 1997). It is also essential to specify resources for students and educators for efficient and effective management of the curriculum. In curriculum development, planners must provide names, specialties of staff and this data must be shown in a specific part of the curriculum map (Prideaux, 2007; Roger and Mark, 2007). Assessment methods used for evaluating learning outcomes including student's knowledge, skills, and attitudes must be represented in assessment part of the curriculum map. Curriculum management; numerous studies in literature have been attempted to expedite good management of a curriculum in medical education (Prideaux, 2000; Prideaux, 2007). Curriculum management approach includes monitoring and evaluation the quality of assessment methods, staff, learning opportunities and their outcomes. Curriculum management is also responsible for providing data analysis and results to each course and maintains an overview of program. A timetable that allows knowing the schedule showing planned education activities play an important role in curriculum management.

Timetable is an essential tool for curriculum planning. The field of educational management is multidimensional so a curriculum must indicate a feedback mechanism and this must be shown in the curriculum map for a continuous development process in designing future education programs (Harden, 2001; Prideaux, 2007). In present article, we prepared a curriculum map for preventing geriatric suicides (Fig 2).

4. Discussion

We recon that medical faculties confronted by challenges in planning their education from many directions in a changing world. For this reason, they have an obligation to monitor changing health priorities of society. According to the findings of studies in the literature, suicide emerges as an important health problem in geriatric population (Nordentoft, 2007; Heisel et al., 2010). According to Turkish statistical Institute (2013) suicide report, highest suicide rate was seen in elderly population. When age specific suicide rates were examined, it was observed that, the highest suicide rate was seen in “75+” age group with 8.08 per hundred thousand, the lowest suicide rate was seen in “35-39” age group with 4.56 per hundred thousand (Turkish Statistical Institute, 2013). These results correlated to our study results. Evidence came from scientific researchers showed that an adequate prevention strategy is needed to reduce the rate of suicide in elderly (Pritchard and Hansen, 2005; Tıraşçı and Gören, 2005; Hilal et al., 2010). Not only presenting the characteristics of geriatric suicide deaths, but also it is important to establish leading programs and design medical curriculum for undergraduate and graduate medicine in geriatric medicine. By this way, students will gain sufficient knowledge, skill and attitude by multi-dimensional educational programs on this issue. For

the protection of elderly health, determination of primary educational topics and developing of planned educational program maps emerges as a necessity for Turkey.

Designing computer-based curriculum maps and web-based medical training programs for preventing suicide in geriatric age group will also increase the awareness level of physicians on this topic. Innovative strategies using massive open online courses can allow medical educators to share knowledge between huge amounts of practitioners working in primary care units. By this way detecting and treating elder patients who have suicidal idea is possible. We emphasized that computer-based training must be one of the learning opportunities in planning a curriculum map for preventing suicides in elderly.

During the determination of educational content, we can also develop required preventive health care programs by evaluating forensic data gathered from different geographic areas related to geriatric age group. We can evaluate success rate of the education program by analyzing feedbacks. In the light of analyzing the geriatric forensic data, developing a curriculum map has been provided. We think that several training programs in different topics can be carried out by pursuing of mentioned preparatory steps.

We identified suicide as one of the most predominant health problems according to present study findings and yearly Turkish Health Statistics. In developing an effective strategy for preventing suicides, it is essential to educate students about how to identify, evaluate and manage this problem.

Curriculum planning for mostly seen health problems in geriatrics can ensure a comprehensive strategic integrity to the management of the education activities. As it is emphasized in literature, majority of older adults who die by suicide

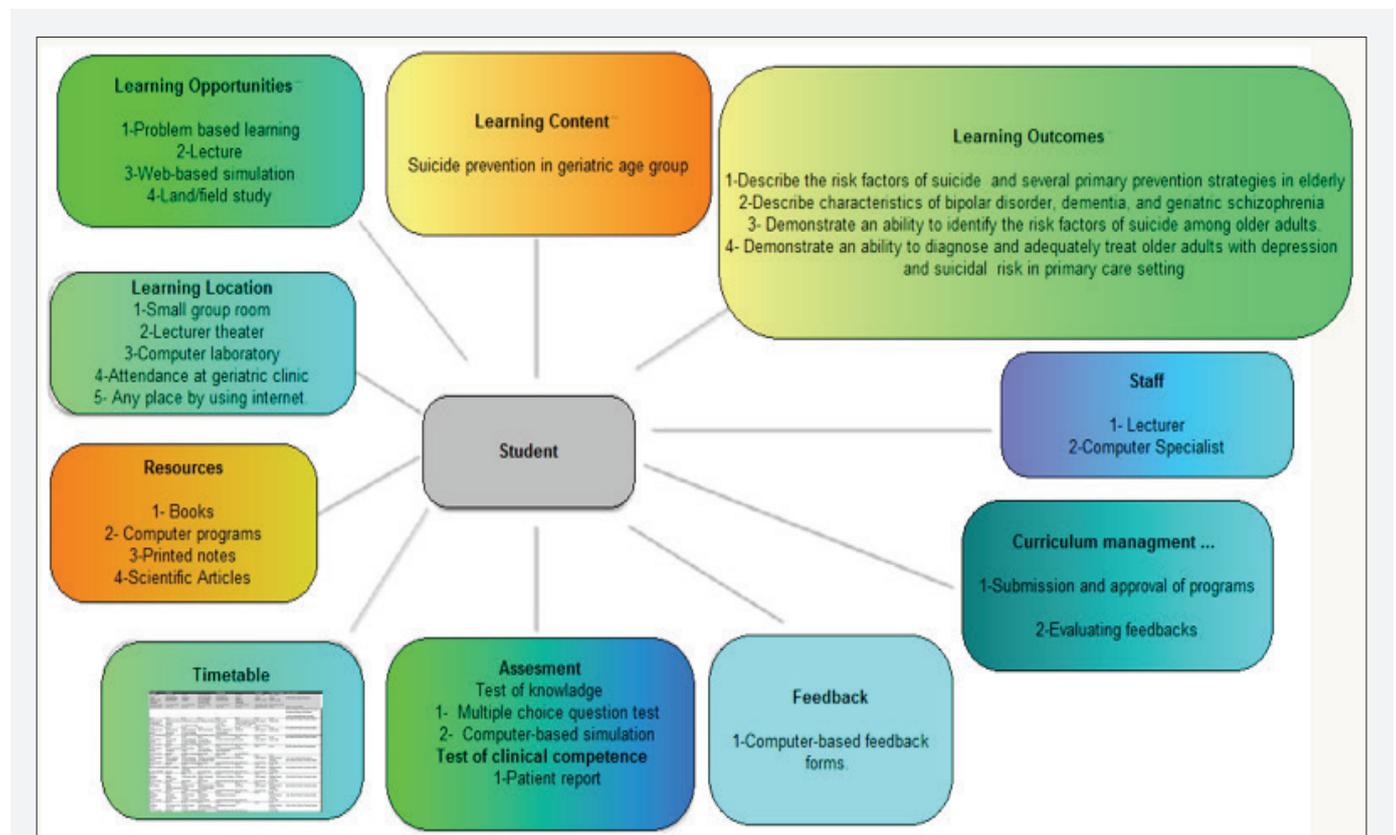


Fig. 2. Designing a curriculum map for geriatric education to reduce the rate of suicide in elderly

have evaluated by a primary care physician in preceding months (Nordentoft, 2007), we have to implement education programs for preventing these forensic deaths. We have not found any information about the place of prevention of elderly suicides in medical curriculum of Turkish medical schools in literature. We conclude that recent programs in medical curriculum materials should be able to include prevention of geriatric suicides. In designing future curriculum plans for medical education, it is also essential using new concepts

such as curriculum mapping in the light of developments in medical education. This will also provide successfully development of the education programs for prevention of suicides in elderly.

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