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Review Article

# English education for healthcare professionals in Japan



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**Summary** In a global environment, education for healthcare professionals should include cultivating human resources who have the necessary skills to work in an international arena. This article will review the current status of English education for dental healthcare professionals in Japan. After conducting a literature search using the keywords: English education, Japan, and dental, only a few studies were found that investigated and proposed suggestions for dental professional English education. Even so, these were still in the early stages with outcomes yet to be fully evaluated. Even though English is thought indispensable for global professionals, and that increasing chances for communication skills is necessary, little attention has been addressed to English education for dental professionals or the implementation of such education in the Japanese undergraduate dental curricula. With the current reality of field expansion in dentistry, the need for not only improved English communication skills for Japanese dentists, but also the acquisition of essential expertise, psychomotor, teambuilding, critical thinking, and creative thinking skills in English as well as Japanese, is a definite probability. In order to reach this level of knowledge, further efforts and research would be necessary for the advancement and development of dental professional English education in Japan.

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## 1. Introduction (English for dental professionals)

In a global environment, knowledge, techniques, research outcomes, workforce and dental related businesses have the potential of becoming borderless. Mutual recognition of dental licensure, for example, has already become a reality in the EU. In addition, other regions are also advancing towards the mutual recognition of dental practitioner licensing [1]. While mutual recognition of dental licensure is not yet a reality in Japan, high-quality healthcare education including current knowledge and trends is required; and the quality of dental education must be globally assured/accredited. A white paper on dental education in Japan (*Shikaigaku-kyouiku hakusho*), published once every three years, presents a realistic picture and also reports the trend of dental education needing to be assured globally [2,3]. This is necessary not only to assure the dental health of Japan's citizens, but also to enable Japanese dental school graduates to acquire the knowledge and skills necessary to work internationally, providing dental care and assistance to other countries thereby improving health standards. Currently, the graduation competencies for dental professionals do not appear to differ significantly by country, which makes globalization in this profession a definite probability [4–6].

In such an environment, English becomes a crucial prerequisite for healthcare professionals to obtain up-to-date knowledge, participate in discussions with international colleagues, pursue successful careers [7], perform state of the art treatments, and communicate with an increasing number of international students and patients. According to the Japan Student Services Organization, the number of international students studying in Japan has been steadily increasing [8]. Also according to a survey, the estimated number of foreign patients in Japan, 22,000 in 2011(FY) and 27,000 in 2012(FY) were calculated with a growth rate of 23% [9]. Accordingly, for students majoring in the healthcare professions, the interest to improve English competencies is growing in many countries [10,11].

In Japan, "English" is sometimes misunderstood as only those proficiencies covered in TOEFL® or IELTS™ type tests, e.g. speaking, writing, listening, or reading; however, in this review's context, English covers the ability for dental professionals to be competent in more than just communication skills. For example, "Critical Thinking Skills", a competency that the American Dental Education Association (ADEA) defines as necessary for new general dentists [4], is very important for decision-making and problem solv-

ing in all the healthcare professions. Of the six domains listed by ADEA, including communication, it is listed first, and is unquestionably an important skill for Japanese dental professionals, too. Education for healthcare professionals should ideally include cultivating human resources with the ability to effectively use these competencies in an international arena in "English". Even though English is indispensable for healthcare professionals, little attention has been addressed to researching the field of English education for dental professionals or the undergraduate dental curricula in Japan [12,13]. Therefore, the objective of this review was to analyze the current situation of English education and which skills are necessary for dental professionals. To do that we first need to take a brief look at the educational structure and history of English education in Japan.

## 2. English education in Japan (pre-university entrance) and its trend

In Japan, compulsory education spans nine years, from primary (six years) through lower secondary school (three years) with a near 100% attendance rate. Even though upper secondary school (three years) is not compulsory, it also has a high attendance rate of over ninety-seven percent [14]. English language education began in 1854 when Japan opened its borders to Westerners. Since then it has undergone many transformations, with the most significant occurring in the mid-1980s when the Communicative Approach became more popular [15].

Even so, while reading and grammar skills have become quite well ingrained, the oral communication skills of the general populace still remain quite low [16]. Under the Ministry of Education, Culture, Sports, Science and Technology (MEXT) Guidelines: "The Course of Study (National Standards for School Curricula)" the government has been revising the standards for English education every ten years since their issuance in 1958. In 2003 the importance of communication skills was stressed, however most lower and upper secondary schools still put a lot of effort into teaching English grammar in Japanese, and translating reading passages into Japanese rather than English speaking and listening skills, which are necessities for communication. Due to lack of funds and number of instructors, in best-case scenarios students often only have 40–45 min of contact with a native English speaker, once a week; which really isn't adequate for improvement.

Therefore, by the time students enter a dental program in university, their communication skills are still underdeveloped. Even though there is a universal understanding that

**Table 1** Competencies for graduating dentists.

Japan <sup>6</sup> Model core curriculum for dental education (2010 revised edition)	United States of America <sup>4</sup> American Dental Education Association	Europe <sup>5</sup> Advisory Committee on the training of dental practitioners
Dentists' responsibilities (professionalism)	Critical thinking	Professionalism
Patient-centered viewpoints	Professionalism	Interpersonal, communication and social skills
Communication skills	Communication and interpersonal skills	Knowledge base, information and information literacy
Team-based medicine	Health promotion	Clinical information gathering
Comprehensive dental practical skills	Practice management and informatics	Diagnosis and treatment planning
Community healthcare	Patient care	Therapy: establishing and maintaining oral health
Interest in research and self-improvement		Prevention and health promotion

English communication skills are necessary to stay on top of new developments in this globalized world, we run into the same problems of not having enough funds, extra hours in the curriculum, or instructors.

In an effort to improve this situation, a meeting of an expert panel on English education, to embody the "English Education Reform Plan responding to the Rapid Globalization (December 2013)" made by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), came up with "The report on the future improvement and enhancement of English education", which proposed the logical and consistent educational goals for primary through upper secondary education [17,18]. These would encompass two points; (1) there should be a smooth transition between the learning in each stage of education; and (2) learning goals for how students should be able to put the four English language skills into use should be autonomous, i.e. decided by the schools under the Course of Study. The meeting proposed five recommendations with the background understanding that development of students' proficiency in English is considered a crucial issue for Japan's future and noted that in reforming English education, the ability to reason, to explain problems, and make decisions to solve them by oneself or in a group setting, are needed in addition to fundamental knowledge and skills. The report also pointed out, that even though many improvements have been made possible due to the current Course of Study, inadequacies still remain and need to be addressed in the area of improving communication skills.

### 3. Dental education in Japan

In Japan, directly after completion of primary and secondary education (twelve years), candidates can apply to dental schools; where there is no exception to the goals established by the government to create an internationally recognized university education system, and implementation of global promotion in accordance with the current global environ-

ment [19]. There are 29 dental schools in Japan: eleven national, one public and seventeen private, which basically provide six-year undergraduate programs referring to the Educational Guideline for Dental Medicine (2007) [20] and the Model Core Curriculum for Dental Education (established and published in March 2001, revised in March 2008 and 2011 (AY2010 Japan)) [6]. The Model Core Curriculum for Dental Education is not concrete, but a set of guidelines for dental schools to refer to when preparing their curriculum. They are categorized A through F as a reference of curriculum building for ease of use and overall understanding for students; including Fundamental knowledge for patient-centered care; Society and Dentistry; Life Sciences; Dental Biomaterials and Dental Materials; Clinical Dental Education for pre-clinical training and Clinical Training. The concrete pedagogies (subjects, methods, order of subjects, for instance) can be set at the discretion of each dental school. Applying the Model Core Curriculum to about 60% of the total hours (units) is rational and a curriculum unique to each dental school should be designed based on the school principles [6]. However, in contrast, the outlines for English education have thus far not been clearly set.

Currently, discussions concerning health sciences education, including dental, have gone from being done on a domestic to an international perspective. The healthcare education system, or curriculum, for dental professionals is provided reflecting the period or age, and dental education is now being discussed on a competency basis [2,3]. To ensure the steady growth, and accountability of dental education, global cooperation is desirable, and no matter the time period, the quality of dental education should be assured both domestically and internationally. Competencies that other countries describe as necessary are, needless to say, also required for Japanese dental school graduates, for example, we compared Japan, the U.S.A. and Europe in Table 1. Once the Japanese graduates' field is expanded outside the borders of Japan, which is definitely a current reality, these competencies will be required not only in one's

mother tongue but also other languages. Since English is considered a universal language, its need is also a definite possibility.

#### 4. Professional (dental) English education in Japan

A literature search was conducted via PubMed concerning the topic with the keywords: English education, Japan and dental and found four articles in which three studies were applicable [12,13,21]. Even though the importance of learning English and the increased necessity for dental professionals is apparent, little research attention has been addressed to the field of English education for dental professionals or the undergraduate dental curricula in Japan and only a small amount of information is available regarding English education for dentistry or undergraduate dental education [12,13]. According to a comprehensive questionnaire-survey on English education conducted in 1999 at all twenty-nine Japanese dental schools [12], almost all of them lacked educators who were native or native-level speakers and most of those did not have a health science background. In addition, there is no ideal textbook for dental students to learn English and 50% of the respondents answered they did not have knowledge of the correct method for English language education although all educators considered English as necessary for dental students [12]. About 10 years later, a subsequent survey on "dental English" course provision was administered to all twenty-nine dental schools [13]. In the subsequent survey, the term "dental English" was used to differentiate it from general English courses. Twenty-two out of twenty-nine schools provided a dental English course, yet the definition or course style differed between schools [13]. Many years had passed since the survey of 1999; however, the problems reported in 1999 still existed in 2011. A paper introduced the development of interactive computer-simulation materials, which could be one solution strategy for overcoming the difficulty of attaining skilled manpower for instructing or developing appropriate textbooks. Interactive computer-simulation materials can provide an opportunity for undergraduate dental students or new graduates to independently study English related to dentistry, or practice English in clinical scenarios [21]. However, it is still in the early stages of use and outcomes have not yet been fully evaluated.

As is shown in basic attributes required for dentists in the Model Core Curriculum for Dental Education (2010 revised edition) [6], the core of undergraduate dental education is to cultivate dental professionals with an assured clinical ability. During undergraduate clinical training, dental students learn comprehensive care and acquire the ability for understanding symptoms, and then accurately diagnosing and planning treatment from a patient-centered standpoint under the supervision of instructors. Almost all the treatments start with a medical interview, which requires communicating with colleagues or patients during treatments, and building rapport; each phase requires the use of language and clinical skills.

It is reported that language concordance itself is an important factor for treatments, and oral communication is necessary for dissemination. Consultation in the patient's

own language added particular benefit and the level of doctor's language command could cause misunderstandings in regards of treatment plans and exam results [22,23]. Currently, the major language dentists in Japan use during treatments with colleagues or patients is Japanese, which means clinical training in Japanese is a must, and in most cases, clinical training is conducted in Japanese at almost all twenty-nine Japanese dental schools. However, with further expansion of globalization the opportunities and necessity for people in Japan to use languages other than Japanese will grow. In the same vein, the opportunities for Japanese dental school graduates to provide or present on dental care or dentistry will most likely expand outside Japan in the near future.

The trend for Japan to have an increase in the number of international students, patients and people will continue. One of the definite examples is the 2020 Tokyo Olympic and Paralympic Games. It is predictable that in cases where the patient's native language differs from that of a dentist, English will most frequently be the common language, and would be the first choice. There was a report that noted trainee residents of dentistry in Japan might consider their level of knowledge for medical interview or communicative skills in English were more deficient than terminologies required for clinical practice [21]. Medical interviews in English require both communicative ability and dental knowledge. For Japanese native speakers this can be quite difficult and also rely on the basic ESL (English as a Second Language) communication skills they learned before entering university. Objective data for measuring current undergraduate dental students' English abilities has not been published, however, "the report on the future improvement and enhancement on English education" pointed out many issues that still need to be addressed, especially those that include developing students' communication skills for the primary, lower and upper secondary education levels [17,18]. Needs for more acquisition of English abilities in international exchanges in dental faculties are taken up as a problem [2,3,11,24] and another study observed insufficient communication skills in English in educating overseas students in Japan [25], these might suggest the need for Japanese dental schools to provide education for both English communication as well as dental knowledge and skills in English.

The study on overseas students' education [25] also casts the necessity for English education related to dentistry for undergraduates. Not all graduates will choose academic or research careers in the future, however, Japanese undergraduate dental education attaches substantial importance to the research field, and needless to say, cultivating educators is essential for the continuance of dental education. In academia, the inclusion of international students, and being able to share knowledge and up-to-date evidence-based practice is becoming more common. Plus, of course, English is the most common language for international conferences and publication of journals.

Prior to entering the clinic for hands-on treatment, clinical skills must be acquired, and knowledge and information acquisition must be critically examined. For this examination, communication with colleagues and information gathering, both in Japanese and in English, is necessary; yet room for discussion remains in Japan concerning education



for English as a Second Language in dentistry. The opportunities for Japanese undergraduate dental students to learn dentistry in English, practice skills of using English in clinical settings or brush up their communicative skills in English are now quite limited and education for English related to dentistry in Japan seems to still be in the improvement phase.

## 5. Professional English education

In our increasingly borderless world, there appears to be an insignificant difference in the competencies or attributes necessary to become a dental professional. [4–6]. For evidenced-based treatments, information gathering of updated scientific knowledge and skill acquisition is required. For learning and provision of holistic patient-centered dental care, in addition to the essential expertise and psychomotor skills, teambuilding, critical thinking, and communication skills are also quite necessary. Team-based medicine and community health care also requires teambuilding and communication skills. Emerging dental information needs to be evaluated with critical thinking and problem-solving skills. Information would be interpreted and then integrated through the use of creative thinking skills to elaborate further output. In a global environment, knowledge, techniques, information and health care provision have become borderless in both reception and contribution. With current trends, there is need for providing education for such skills at each dental school, yet the discussion concerning education is still ongoing in Japan. Therefore, an objective viewpoint is still difficult, but serious consideration should be given concerning provision of education for those skills in the near future, as those competencies are considered necessary for becoming a dental professional in the current global environment.

## 6. Closing remarks

With the present reality of field expansion for dental school graduates enabling them to work outside their home country and have borderless cooperation between healthcare professionals, acquisition of essential expertise and psychomotor skills, teambuilding, critical thinking, and creative thinking skills not only in Japanese, but also in English is a definite possibility. However, communication skill acquisition both in Japanese and English would be the first issue that needs to be solved in dental education in Japan. Three factors noted as a barrier to communication for quality and safety of care are: differences in language, cultural differences, and low health literacy [23]; and in this multilingual and multicultural era, not only the language differences, but also cultural differences should be considered in education. Further efforts and research are required concerning the English education of dental professionals in Japan, and considering the rapid progression of globalization, development concerning this education would be recommended over the next few years.

## Conflict of interest statement

The authors of this article certify that they have no conflict of interest in the preparation for this manuscript.

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