People consider a doctor’s attributes and competencies in treating patients to be important when defining what a “good” doctor is. To determine the necessary attributes to develop “good” doctors, we analyzed questionnaires that were answered by university students. There were 154 male and 318 female university students that answered the questionnaires. The religions of the students were 249 (52.8%) in atheist, 122 (25.8%) in christian, 49 (10.4%) in catholic, 45 (9.5%) in buddhist and 7 (1.5%) in others. They thought that 1st factor as an excellent doctor was skilful and knowledgeable in 53.2% and 2nd was to give full explanation in 32.6% and 3rd was kind in 13.8%. They thought as a reliable doctor that 1st was to work at university hospital and 2nd at general hospital and 3rd at middle-sized hospital and last at private clinics. They needed to educate a professional skill and knowledge and active communication with patients for nurturing a good doctor. They thought that the reliability for doctor was 3.4 and for medical service 3.3 by Likert 5 scales. University students thought that a good doctor was skilful and knowledgeable and to explain in detail with patients and their caregiver fluently.

Keywords: Good doctor; Skilful and knowledgeable; University students
researches on the characteristics and qualifications of a good doctor has not been systematically conducted yet [4,5]. In addition, the goal of medical education aims to nurture competent doctors demanded by society, but practically, the goal of medical education conducted in medical college is designed separately without reflecting the practical needs from community [5]. In other words, it is a concern that the medical education currently taught at medical schools is not able to nurture the doctors that people want. Looking at previous studies in foreign countries, people who are medical consumers want doctors to sympathize with patients and require that they have competent clinical qualifications as well as effective interpersonal communication skills [6,7].

In fact, it is very difficult for researcher to identify the concept or attributes of a good doctor because it is variable according to the social, cultural and economic situation, as time goes by, but it requires setting the goals achieved in medical education and developing medical educational curricula [8,9]. In previous studies, researchers have tried to find the concept of a good doctor through doctors, medical students, general people, patients, and health care workers, but there was still not enough research through groups that would mainly use modern medical services in the next 10 to 20 years [5,10,11]. In university students, we investigated the perspective of a good or competent doctor through the questionnaires and would provide the basic data for medical educational curricula to nurture a good doctor.

MATERIALS AND METHODS

A survey was conducted on university students who met on campus for a month in November 2018, among 1st to 4th grade students enrolled in ‘C’ university in Gwangju. The items of questionnaires consisted of the general demographic data and characteristics as a good doctor by two educational professors. Students in medicine, dentistry, pharmacy and nursing department were excluded from the survey, and 472 (94.8%) of the 498 students who answered the questionnaire were conducted. We also excluded 26 (5.2%) students who omitted the several answers of the questionnaires. We investigated the characteristics of a good doctor, including socio-demographic characteristics (gender, age, religion, major, etc) of the subjects.

The reliability of doctors and medical services, and the necessary educational curricula.

For cultivating good doctors. The Likert scale of the questionnaire asking the level of satisfaction was marked with 5 points (5: very satisfied, 4: satisfied, 3: ordinary, 2: dissatisfied, 1: very dissatisfied). The reliability of the questionnaire tool was Cronbach=0.79. The Cronbach alpha was more than 0.7 and we accepted it. For statistical analysis, chi-square test and Fisher’s exact test were performed using SPSS 19.0 version (IBM, Chicago, IL, USA) and the statistical significance level was set to p<0.05.

RESULTS

Socio-demographic data of the subjects

The subjects were classified by gender, major, and religion. The number of the subjects was 154 males (32.6%) and 318 females (67.4%) with a high proportion of female subjects. The major fields of law, commercial business and social sciences were 152 (32.2%), language, education, humanities 112 students (23.7%), arts and physical education 82 (17.4%), natural sciences including health care 65 (13.8%), and engineering 61 (12.9%). There were 249 students (52.8%) in atheist, 122 (25.8 percent) in christian, 49 (10.4 percent) in catholic, 45 (9.5%) in buddhist, and 7 (1.5%) in others (Table 1).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>No. (%)</th>
</tr>
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<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>318 (67.4)</td>
</tr>
<tr>
<td>Male</td>
<td>154 (32.6)</td>
</tr>
<tr>
<td>Major fields</td>
<td></td>
</tr>
<tr>
<td>Law, business and social science</td>
<td>152 (32.2)</td>
</tr>
<tr>
<td>Language, education, humanities</td>
<td>112 (23.7)</td>
</tr>
<tr>
<td>Fine arts, physical education</td>
<td>82 (17.4)</td>
</tr>
<tr>
<td>Public health, natural science</td>
<td>65 (13.8)</td>
</tr>
<tr>
<td>Engineering</td>
<td>61 (12.9)</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td>Atheist</td>
<td>249 (52.8)</td>
</tr>
<tr>
<td>Christian</td>
<td>122 (25.8)</td>
</tr>
<tr>
<td>Catholic</td>
<td>49 (10.4)</td>
</tr>
<tr>
<td>Buddhist</td>
<td>45 (9.5)</td>
</tr>
<tr>
<td>Others</td>
<td>7 (1.5)</td>
</tr>
<tr>
<td>Total</td>
<td>472 (100.0)</td>
</tr>
</tbody>
</table>

No.: number.
The characteristics of a good doctor

There were no gender-based priority differences in response to the properties of a good doctor, and the attributes of a good doctor were intellectual in 45.7%, well explained in 36.2% and kind in 17.2%. Most of male students thought that a good doctor was intellectual or competent.

But most of female students thought that a good doctor was intellectual, well explained and kind. Depending on the type of workplace, the most reliable doctors were 49.6% at university hospitals, 35.4% at general hospitals, 8.7% at small and medium-sized hospitals and 6.3% in private clinic. The reliability of doctor was different depending on the size of the hospital in which they worked. They thought that the personality as a good doctor was responsibility, conscience, kindness and service spirit in order (Table 2).

The reliability of medical services and doctors

Undergraduate students’ confidence in medical services is 2% in ‘very satisfied’, 34% in ‘satisfied’, 53% in ‘normal’, 10% in ‘unsatisfied’ and 1% in ‘very unsatisfied’, respectively and positive evaluation was 36% and negative evaluation was 11%. The medical service score based on the 5-point Likert scale was 3.3. The current confidence that students think about doctors was 2% in ‘very reliable’, 43% in ‘reliable’, 49% in ‘normal’, 5% in ‘unreliable’ and 1% in ‘very unreliable’, respectively. Based on the 5-point Likert scale, the confidence score about doctors was 3.4 (Table 3).
Essential medical educational curricula for a good doctor

As for essential medical educational curricula for a good doctor that university students thought, 27% were communication skills with patients, 26% were professional medical skills, 19% were professional medical knowledge and 11% were kindness education, respectively. When looking at the disliked doctors, 32% were ‘cheeky doctors’, 28% were ‘money lover doctors’, 22% were ‘unexplainable doctors’. The competency in 64% of the subjects was more important than the personality in 36% of the subjects (Table 4).

Preference for doctors as an occupation

Regarding the reason they prefer a doctor as an occupation, they thought that 40.7% were ‘making a lot of money’ and 34.3% were ‘honor’. Others were ‘social contribution’ (13.6%), stable workplace (6.5%), and self-satisfaction (3.6%) (Table 5).

DISCUSSION

As people’s life and educational levels have improved, the needs of modern people are being raised to improve their quality of life, and in the medical field, patients’ need for medical services is changing, not only as a disease healer but also as a communicator [12]. Furthermore, the development of medical science alone does not mean that desirable medical care is achieved. Therefore, it is important to develop a “good doctor” that actively accepts the medical needs of members of society and to educate them by establishing the necessary educational curricula. Research on 21st-century doctorimage began in the late 20th century, and the Association of American Medical Colleges (AAMC) published the “21st-century doctorimage” in 1984 [13]. The General Medical Council (GMC) published “Tomorrow’s Doctor” in 1993 [14]. In Korea, the Korea Association of Medical Colleges (KAMC) published ‘the 21st century Korea medical education plan: 21st century Korean doctors’ images [15].

In order to foster good doctors based on that, the governor of universities have recently tried various medical educational topics and educational teaching techniques. These are the contents that emphasize patient-centered care and social accountabilities such as medical professionalism, medical humanities, communication skills and interpersonal relationships, which were rarely dealt with in medical schools in the past [16,17]. It is also a process in which various educational teaching techniques are tried and their effectiveness is verified. However, members of society are not satisfied with their wishes and expectations for doctors and medical services [12].

Looking at the results of previous studies, there was clearly a difference between people and doctors as a good doctor’s image. While medicalworkers have evaluated clinical knowledge and abilities as the attributes of good doctors, but patients and caregivers regarded communication skills and
Until now, there was no significant difference in the attributes of good doctors desired by patients. In this study, the first subject they suggested for cultivating a good doctor as a medical curriculum was communication skills with patients and in aspects of medical education, we have to emphasize communication skill with patients. In addition, in this study, as a life-handling medical doctor, undergraduate students preferred skilled doctors not only with professional knowledge of medicine and professional skills, but also with excellent communication skills with patients. Especially, female were interested in not only professional knowledge and skills, but also good communication skills and kindness as a good doctor.

In this study, the properties of disliked doctors was cheeky (38%), money lover (28%), unexplained and etc, in order. The officers of college of medicine have to develop medical curriculum to improve communication skills with patients and to reinforce the humanities subjects for nurturing excellent doctors with social accountability. A national study of patients about a good doctor showed only necessary tests and prescriptions as an important factor and reported that they reflected public people distrust in local community [8]. However, according to the survey of the reliability of seven professional jobs, including doctors, professors, accountant, journalist, religious people, lawyers and senior executives, they gave doctors 4.46 out of 7 Likert points which was highest [19] and in this study, they also gave doctors 3.4 out of 5 points in reliability of the doctors and 3.3 out of 5 points in satisfaction of medical services. We need to survey further about items of ‘only necessary tests and prescriptions’ and ‘prevention of over-care’, because the attribute of the disliked doctors was to make a lot of money (28%) which related to the cost of care.

In the study of Lee and Ahn [8], self-assessment scores about “considering the family and their surroundings”, “unauthoritative and kindness”, “reliable rapport between doctors and patients” as a desirable image of a good doctor in private clinics were higher than medical students and professors in university. In the results of this study, university students also choose communication skills with patients in essential medical curriculum for fostering a good doctor. By the way, they thoughts that the reliability of doctors in private clinics who has good communication skills with patient, themselves was lower than that of doctors who has poor communication skills at university hospital. This meant that due to lack of experience about medical consultation, we thought that they considered doctors more positive at university hospital than at private clinics. In the previous study of foreign country, they thought that a good doctor was ‘gentle, patient-centered, listened and explained to patients well, responsible as an expert’ [11]. The results were very similar to those of our study.

In our study, the reasons for preferring a doctor as an occupation were money (40.7%), honor (34.3%), social contribution (13.6%), and stable workplace (6.5%). Despite its great role in improving public health over the past half-century of remarkable advances in medicine, people thought that a good doctor image was far from reality due to insufficient social accountability of current doctors and even students have shown poor views of doctors. In the future, it is thought that doctors should try to reduce the negative perception of members of society by taking on social responsibility and the role of leader in modern society. When we are looking at a good or competent doctor in modern and future society as a desirable doctor, they wish to improve the medical services and to become a good doctor who can communicate with patients, warmly. Therefore, modern medical education needs to fully reflect the needs of this society in the curriculum, and in addition, when we improve the real facilities and relationships with patients in local hospital and general hospital, we can reduce a gap between a common doctor and a good doctor as a desirable doctor. There is also a significant change in the contents and virtues of a good doctor image [20].

There were several limitations to this survey. First, since the properties of a good doctor presented by this study did not include all the attributes of good doctors, it seemed that the answers of questionnaires were limited. Second, the subjects who will be future medical consumers were only university students, the limitations of interpretation cannot be ignored. However, in order to get good results, we will develop more specific and reliable items and expand the subjects including medical students and practitioners. It showed the necessity and reinforcement of humanities related to the personality required by society as well as the professional medical knowledge and skills in medical education.
In conclusion, they thought that a good doctor was to work at university hospital and to communicate well with patients and to have professional medical knowledge and skills. University students thought that essential medical curricula should include the subjects involved professional knowledge and skills, communication skills with patient, kindness education for nurturing a good doctor.

ACKNOWLEDGMENTS

This study was supported in 2018 by Chosun University.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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