

ORIGINAL**The Employment Status and the Need for Issuing Practising Certificates to Bachelors of Nutrition in Vietnam in 2021**

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ABSTRACT: The objectives of this research were to study the occupational situation and the demand for a practising certificate to dietitians at Hanoi Medical University (HMU) in Vietnam in 2021. The cross-sectional study by an online survey was conducted on 239 subjects (23.3 ± 1.9 years old, 88.3% female) of 6 Bachelor of Nutrition (BN) courses. In terms of the survey on workplaces for graduates of the first 4 years surveyed, the results showed that hospital dietitians account for one-third of the total number of dietitians (55/165). And this rate is a significant downward trend from 52.3% (the first class from 2013) to 15.8% (the fourth class from 2016). The percentages of dietitians working in food companies or in postgraduate studies were 13.9% (23/165) and 10.3% (17/165). No dietitians were working in the fields of School Nutrition and Food Hygiene and Safety. The percentage of dietitians working outside the field or unemployed was increasing, from 6.8% (the first BN from 2013) to 26.3% (the fourth BN from 2016). For the survey on issues related to the demand for practising certificates for 6 BN classes, some of the difficulties they faced when working without a practising certificate included the fact that over 80% of dietitians claimed that they were not allowed to participate in consultation and assessment of the nutritional status of patients. More than half of the dietitians (55.8%) felt that it was difficult to give nutritional advice to patients. About the degree of necessity for a practising certificate, nearly 90% of BNs thought that a practising certificate was necessary for positions that employ dietitians as part of their human resources, such as specialized/general hospitals; Community nutrition care and support facilities; School nutrition; management agencies/Ministry of Health/Department of Health; Center for Disease Control (CDC); Universities/colleges; food companies, canteens, and fitness centers/gymnasiums. In conclusion, the trend of dietitians who work in a clinical nutrition field is decreasing; almost no dietitians are employed in the school nutrition and food hygiene and safety fields. The rate of unemployment and side jobs is increasing significantly. Almost all BNs find it difficult to work without a practising certificate. The results show the high level of necessity of granting a license for BN in all fields of nutrition, especially in clinical nutrition.

Key words Bachelor of Nutrition, Practising certificate, Vietnam.

INTRODUCTION

Nutrition is a career related to food and human health, subdivided into many areas such as clinical nutrition, community nutrition, school nutrition, food hygiene and safety, and nutritional science research (1,2). The demand for dietitians increases every year due to awareness of the key role of nutrition in supporting treatment in hospitals and health areas in the community. In the healthcare system, human nutrition training began in the 19th century in the United Kingdom and continued to expand to the United States throughout the 20th century. World-wide, the system of accreditation and certification of dietitians' practice has existed for a long time. The first registered dietitian qualification examination in Japan was administered in 1987, and it became a regular exam given once a year. At present, Japan has 25 dietitians per 100,000 residents. After decades of development, human nutrition has become a thriving system that is widely recognized by professionals and the public. In Vietnam, in 2006, Hai

Duong Medical Technical College, now part of Hai Duong Medical Technology University, began to train Nutrition Technicians, but the training program did not gain acceptance by society, so the school stopped this program after only 3 classes of students. By 2013, because of being aware of the role, necessity, and urgency of dietetics, the Ministry of Education and Training permitted the enrollment and specialized training of Bachelor of Nutrition (BN) students at HMU, with the job code 7720401 (3,4). According to Joint Circular No. 28/2015/TTLT-BYT-BNV, a BN is a person who is trained with the ability to work in many positions related to nutrition in society (1). However, unlike some countries in the region and the world, Vietnamese dietitians have not currently been granted a practising certificate. This has caused some difficulties in the job, especially in positions that require specialized knowledge and outstanding skills in nutrition diagnosis and intervention. As a leading institution in the training of BN, by 2021 Hanoi Medical University has trained 8

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classes of BN students in Vietnam, of which 4 courses graduated at least 165 dietitians. Therefore, what are the difficulties faced by dietitians who have not been issued a practising certificate during their work. We conducted surveys on the demand for granting a registered dietitian's license from the first 6 BN classes in Vietnam and the employment situation of those dietitians who have been graduated for at least one year.

METHODS

Study setting and subjects

The study was designed to be a cross-sectional study and was conducted during one month from May 2021 to June 2021. The study collected data only with the consent of the research subjects to participate. All information is for research purposes only. We used a non-probabilistic and purposive sampling method in this study. The study included participants who are BNs of the full-time nutrition course of HMU from the first course (2013 – 2017) to the sixth course (2018 – 2022) (278 subjects) and who have fully understood the explanation of the survey and agreed to take part in the online survey.

Data collection

We collected data by using online questionnaires that included an explanation of the meaning and objectives of the study. These questionnaires were sent to class monitors and group leaders of each class. They had responsibility for announcements, supervising, and encouraging the members to complete these surveys.

For the occupational situation objectives of BN, we collected the information on subjects who were BN from the full-time nutrition course of HMU from the first (2013 - 2017) to the fourth course (2016 - 2020). They had been graduated from HMU for at least one year and had the opportunity to work in various institutions. The information includes (1) General information about age/gender/year of graduation; (2) workplaces at present: Hospitals / Universities / Colleges (lecturers or researchers) / School nutrition (school lunch) / Nutrition clinics / food's companies / Management agencies of the Ministry of Health/ Department of health / Sport Nutrition/ The Gymnastic Center / Center for Disease Control (CDC) / Postgraduate courses/ unemployment/ side jobs/ no response.

With regard to the demand for issuing a practising certificate to BN, we collected the information on subjects who are BN from the full-time nutrition course of HMU from the first (2013 - 2017) to the sixth course (2018 - 2022), of which the fifth class is newly - graduated students from HMU (2021), and the sixth are seniors. The information includes: (1) General information about age/gender/year of graduation (2) Dietitians' opinions on which workplaces they think should issue the practising certificate (3) Dietitians' opinion on the basis/bases on which a certificate should be issued (Using a Likert scale).

Statistical analysis

Categorical and quantitative variables were expressed as the number of subjects (percentage), and mean (standard deviation), respectively.

RESULTS

There were 239 subjects (23.3 ± 1.9 years old, 88.3% female) who participated in this study in total, 278 current and graduated students from 6 BN courses.

The number of dietitians from four classes working in nutrition departments/centers in hospitals accounts for the highest number of total BN graduates (55/165). However, this trend was gradually decreasing, specifically: the number of the first class of dietitians working in hospitals accounts for the highest percentage (52.3%), but it decreases to 32.4% (the second course), 30.6% (the third course), and finally only 15.8%, equivalent to 6 dietitians for the fourth class. Currently, there are no dietitians from any of the 4 classes working in the field of School Nutrition. The percentage of BNs working in Food Companies from the first class to the fourth class was 9.1%, 20.6%, 4.1%, 26.3%, respectively. The percentage of dietitians working in nutrition clinics was highest for the third class at 14.3%. The figure for dietitians who continued in postgraduate training programs (Master, Ph.D.) was highest for the fourth class at 18.4%, equivalent to 7 dietitians. The proportion of BNs working in other field/unemployment for the first class and the second class is 6.8% and 8.7%, respectively, and then this trend rises significantly for the third class and the fourth class at 26.5% and 26.3 %, respectively.

Figure 2 shows that 97.8% of BN believe that a practising certificate is necessary for working positions in general and in specialized hospitals; 93.1% of BN believe that a practising certificate is necessary for working in health care and nutrition support facilities in the community. The percentage of BNs who think that a practising certificate is necessary to work in the field of School Nutrition; the management agencies of the Ministry of Health, the Department of Health; CDC; universities and colleges (research, teaching) is 83.5%, 83.5%, 77.9% respectively. 73.6% of BN think that a practising certificate is necessary for positions in food companies and 66.2% of BN think that it is necessary to be granted a practising certificate for working in a collective kitchen.

The results of figure 3 show that 86.6% of BN found it difficult when they could not participate in nutrition consultations in health facilities; 82.3% had difficulty when they could not examine and assess the nutritional status of patients. The percentages of BN who had difficulties when they were not allowed to give nutrition advice and were not permitted to communicate nutrition education to patients were 55.8% and 43.7%, respectively. There were only 1.7% of BN who had other difficulties such as not being licensed to launch a nutrition clinic, being equated with those selling functional foods, not being respected when working in healthcare facilities and so on.

A major proportion of BN believe that a practising certificate is would provide a legal basis to protect dietitians in professional activities in the field of nutrition; 87.1% of BN think that this is necessary and very necessary, and only 11.7% think that this is not necessary. The percentage of BN who think that a practising certificate as the basis for certifying that health workers are qualified to participate in

professional activities is necessary and very necessary accounts for 87.5%; only 11.7% think it is not necessary. The practice certificate is the basis for the state management agency to manage the profession and to define the scope of the practice of the practitioner. 86.6% of BN think that this is necessary and very

necessary, while only 13.1% of them are considered normal and unnecessary. The practice certificate should be the basis for the authorities to recognize the job position and function of the BN, is assessed by 87.5% of BN as necessary and very necessary, and only 11.7% of BN think this is not really necessary.

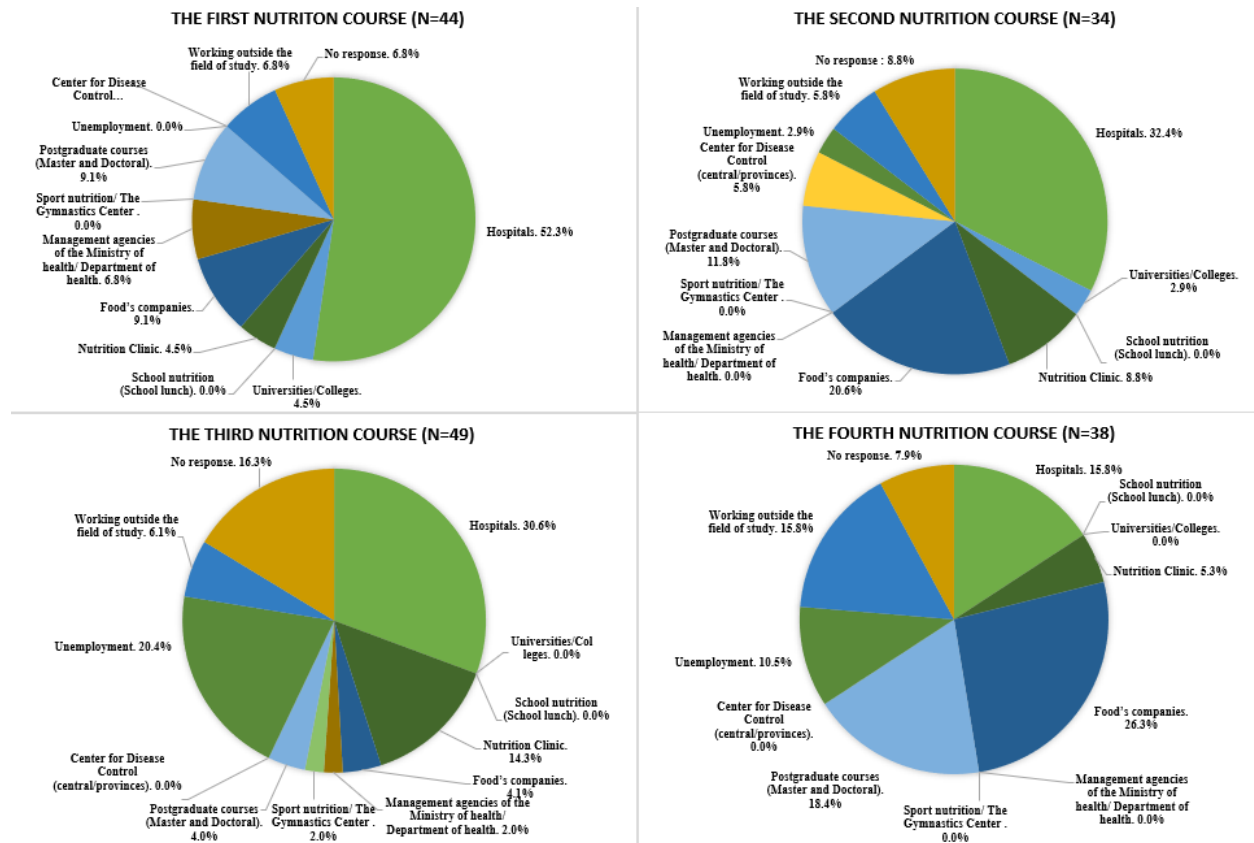


Figure 1. The employment status of the first four classes of Bachelor of Nutrition (The first class to the fourth class)

Practising Certificates for Vietnamese Dietitians

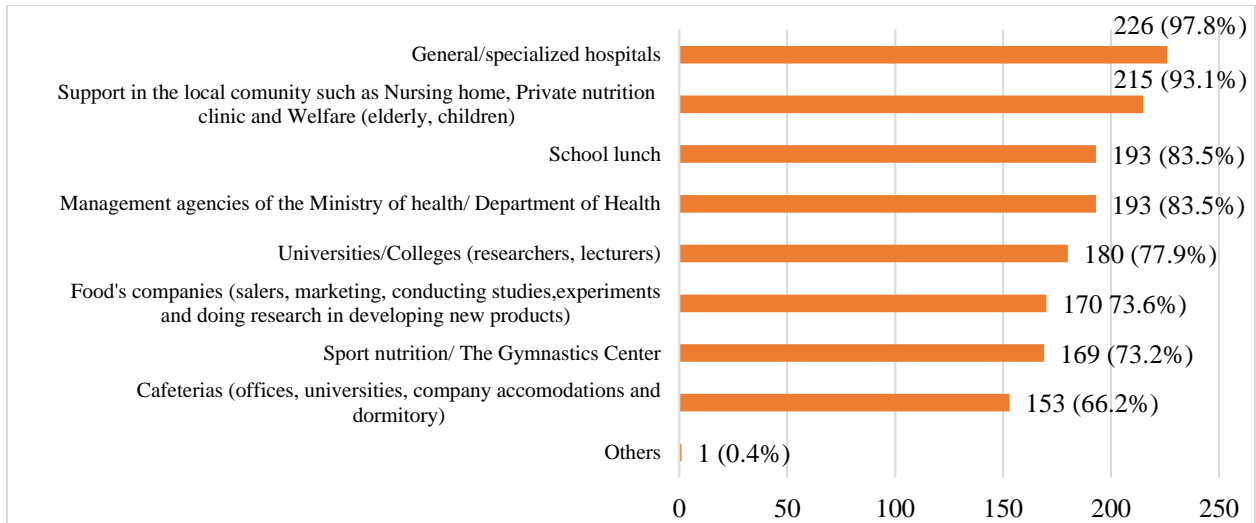


Figure 2. The percentage of workplaces for which a Bachelor of Nutrition believes that a practising certificate is required (n=231)

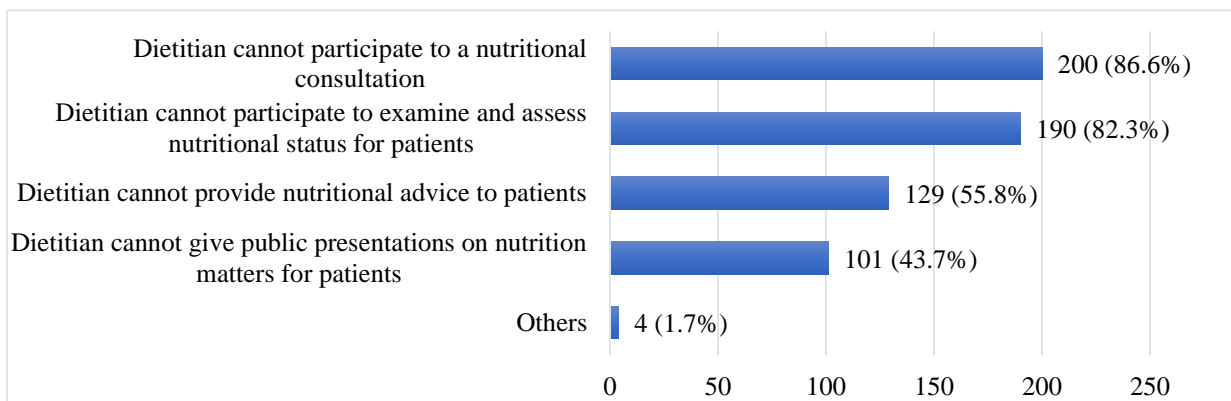


Figure 3. The main difficulties that Bachelor of Nutrition faces when they work without a practising certificate (n=231)

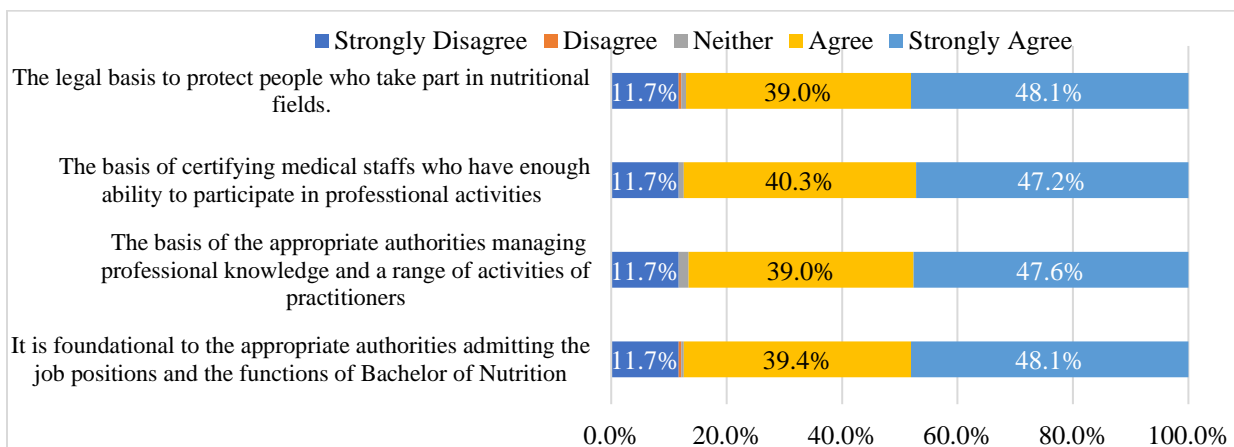


Figure 4. The level of necessary of the foundations and the bases to issue a practising certificate that follow the opinions from the first course to the sixth course Bachelor of Nutrition (Likert Scale)

DISCUSSION

In Vietnam, the system of training for a bachelor's degree in nutrition began in 2013 at Hanoi Medical University (HMU). The survey of workplace distribution of students from 4 BN classes (the 1st to the 4th year graduates from the BN course at HMU) who have been graduated at least one year showed the percentage of dietitians working in the field of clinical nutrition in hospitals has tended to gradually decrease. This trend shows that the number of dietitians with regular training struggle to meet the requirements for the number of dietitians per each sick-bed as required by circular No.18 of November 2020 on hospital nutrition (5). There are several reasons associated with this trend such as low income, lack of supportive policies and an insufficient attention from the board of managers in hospitals. In Japan, according to a statistical report in 2018, there were about 40,000 hospital dietitians, which accounted for the highest figure among all nutritional fields (6). However, according to a survey conducted by the National Institute of Nutrition in 2018, in Vietnam, nearly half of provincial hospitals do not have a department or team of Nutrition, and there are almost no Nutrition Departments in district health centers. More than 3/5 of the Departments of Nutrition do not have employees with a university degree, and the number of nutrition staff is from 6 to 10 people, but the number of the staff members with university degrees accounts for less than 50%. In addition, there are very few dietitians who labor in other areas such as community nutrition and food hygiene. Notably no dietitians from any of the four classes are working in the field of school lunches. In contrast, in 2014, 12,143 dietitians were working in the field of school lunch and among them there were approximately 4,703 employees who worked as nutrition teachers in Japan (7). In terms of school nutrition, school dietitians have a key role in monitoring food safety, making balanced diets, and conducting nutrition education. They also cooperate with other teachers and students' families to encourage enhanced dietary guidance in order to create solutions for improving insufficient vitamin and mineral conditions, and controlling overweight and obesity in school-age children. This is the case for Vietnam at present, according to the national nutrition survey 2019 - 2020, the prevalence of overweight and obesity increased from 8.5% in 2010 to 19% in 2020 in which the prevalence is 26.8% in urban areas, 18.3% in rural and 6.9% in mountainous areas (8). The prevalence is highest in the large metropolises, particularly in Ho Chi Minh City (above 50%) and Hanoi (above 41%). Therefore, the government should have policies to encourage school nutrition development. In addition, the proportion of dietitians who work in food companies slightly increased during the period from 2017 to 2020. There are around 10% (equivalent to 17 dietitians) of the dietitians who are continuing to study in postgraduate programs, which could lead to a rise in high-quality human resources in the nutritional fields in Vietnam. It is clear that the figure for unemployment and side jobs dramatically increased from 6.8% for the first class to 26.3% for the fourth class. Currently, the demand for nutritional resources in Vietnam is

increasing compared to the previous decades. But the unemployment rate is still quite high, which shows the limitations and inadequate attention paid to the position of dietitians in society. These findings show that the authorities should introduce more focused policies on the development of nutritional human resources and expand the development of clinical nutrition in district and provincial areas. The government also should improve the quality of school nutrition in order to set the goal of building awareness and knowledge about the importance of nutrition in the primary students and at the same time offer working opportunities for school dietitians. One of the greatest contributions to the development of the nutrition major worldwide was the introduction of the certificate of practice for "dietitians" in 1923 in the United States, so nutrition was officially recognized as a career (9). A registered dietitian must have a minimum of a bachelor's degree or higher degree in nutrition and food science. These standards were adopted by The International Confederation of Dietetic Associations (ICDA) and many countries such as the United States, the United Kingdom, Japan, and China. In China, the education of dietitians (not registered) majoring in home economics was established in the 1920s (10). However, there was a lack of a registered dietitian accreditation system for dietitians, which caused inadequate government management some types of nutritional training agencies. As a result, there were a large number of nutritionists or dietitians who are trained in informal programs such as a short training period (3 to 6 months of class training), unqualified nutrition instructors, and no internship practice in the nutritional institutes. These "dietitians" with minimal training in nutrition and no practice, negatively impacted the reputation of dietitians among the public and hampered the development of nutrition and dietetics in China. Therefore, after many years of huge effort, in 2016, China's government organized the first registered dietitian qualification examination (11). The exam was successfully carried out in 2016, in the examination center of Shanghai Jiao Tong University School of Medicine (12).

In Vietnam, there are 7 universities which have nutritional training programs to date of which 4 universities have graduated students who take part in the labor market. Among these 4 universities, HMU also has the highest number of dietitians with 4 graduated classes who have at least 1 year of experience working, and 1 class has just graduated in 2021. The results from our survey show that most BNs paid a lot of attention to licensing practising certificates for their career. In terms of working without a practising certificate, more than 80% of BN find it difficult to participate in nutritional consultations and assessment of nutritional status for patients. There are approximately 50% of BN who could not make public presentations on healthcare matters or counsel nutrition for patients. These facts point out that the number of dietitians working professionally in Vietnam is not high, and formal nutrition care for patients has not been developed. Furthermore, a small proportion of BN have been misunderstood by society and consider untruthful or a functional food businessperson, have not been

respected, have been thought to not have an obvious career title and so on. In terms of the four main aspects of the needs need for a practising certificate for BN: “The legal basis to protect people who take part in nutritional fields”, “The basis of certifying medical staff who have enough ability to participate in professional activities”, “The basis for the appropriate authorities managing professional knowledge and a range of activities of practitioners”, “It is foundational to the appropriate authorities admitting the job positions and the functions of BN”, this survey revealed that there are nearly 90% of BN who believe that it is necessary and very necessary to issue a practising certificate in nutrition career. Only about 10% of BN think that it is unnecessary and very unnecessary to issue a practising certificate; most of these BNs are working outside of nutrition fields or unemployed. This makes clear the expectation to be granted a practising certificate for BN to protect and to confirm its functions while working. With the positions in general or specialized hospitals, healthcare facilities, and the nutrition community, over 93% of BN agree with the opinion that “a practising certificate should be provided to BN”. Over 84% of BN believe that a practising certificate is needed for job positions such as school nutrition, management agencies of the Ministry of Health/Department of Health, and the Center for Disease Control (CDC). The figure for Universities/Colleges (researchers, lecturers) and the food companies was above 70%. The lowest figure for working at at canteens and Gymnastics Centers is around 62%. However, no dietitians were working in the field of food hygiene and safety or at gymnastics centers and therefore these areas could receive less attention from BN compared to other areas. In general, almost all BN agree that a practising certificate should be issued for most fields of nutrition. This is completely aligned with the trend of the leading countries in nutrition development. In Japan, practising certificates are not only issued to employees working in a medical field but also in other fields if they pass the national examination for registered dietitians (13). With the innovation in the “Dietitians Act” in Japan, this was the basic foundation for establishing the “Registered Dietitian system” in 1962, which contributed to developing nutrition services for each Japanese individual. Therefore, Japan is one of nations which has the highest life expectancy in the world. Thus practising certificates are not only a document for confirming the competences and professional qualifications of BN, but it is also a great motivation to help the nutrition industry grow and ensure greater future prosperity.

In conclusion, as a consequence of the employment status of BN, the number of dietitians who work in a clinical nutrition field is decreasing, almost no dietitians are employed in the school nutrition and food hygiene and safety fields. The rate of unemployment and side jobs is significantly increasing. Almost all BNs find it difficult to work without a practising certificate. The results show the very high necessity of granting the a license for BN in all fields of nutrition, especially in clinical nutrition.

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