



Title	A Policy Analysis of the “ Specific Procedure Training Course System ” : A Challenge for Professional Lifelong Learning
Author(s)	Colley, Noriyo; Nakamura, Misuzu; Cashin, Andrew
Citation	高等教育ジャーナル : 高等教育と生涯学習, 27, 1-11
Issue Date	2020-06-23
DOI	10.14943/J.HighEdu.27.1
Doc URL	http://hdl.handle.net/2115/78833
Type	bulletin (article)
File Information	HighEdu.27.1.pdf



[Instructions for use](#)

A Policy Analysis of the “Specific Procedure Training Course System”: A Challenge for Professional Lifelong Learning

Noriyo Colley,^{1)*} Misuzu Nakamura²⁾ and Andrew Cashin³⁾

1) Faculty of Health Science, Hokkaido University

2) The JIKEI University School of Medicine

3) Southern Cross University

Abstract — The aim of this paper is to analyse the “Specific Procedure Training Course System,” which was introduced in 2015 to satisfy increasing healthcare demand in Japan. The policy was analysed through utilisation of Walt and Gilson’s policy triangle. Consequently, it was determined that to improve the system we should: 1) establish a responsible regional organization for satisfying holistic care demands, 2) respect nursing educators’ autonomy for curriculum development for future nursing provision, 3) assure freedom of learning areas to adjust nursing knowledge and techniques for patients’ needs, 4) reduce the financial burden for lifelong learning, 5) introduce a flexible role shift system without the requirement for law modification to accommodate constant technological development, and 6) innovate a new affordable/sustainable reimbursement scheme, encompassing a direct payment system for direct care providers. However, further research is required to identify concrete policy approaches and measure outcomes.

(Accepted on 30 August, 2019)

1. Introduction

In the context of high healthcare expenditure, increased demand for service across the lifespan, uneven accessibility to healthcare service in regional and rural areas and a predicted acute shortage of health care practitioners in Japan, the new role of Nurse Practitioner emerged. The policy response in 2015, from the Ministry of Health, Labour, and Welfare (MHLW) (MHLW 2015) was the “Specific Procedure Training Course System” for Registered Nurses (RNs) in Japan. This “Specific Procedure Training Course System” is a ministerial ordinance that consists of skills-based preparation to conduct 38 procedures, which used to be considered as

medical procedures that only physicians could perform (MHLW 2015). The policy required legal reconstruction and modification of the concept of work-sharing between Physicians and Registered Nurses.

This is a historical event in Japan that is perceived to liberate nurses from subordinate status, and improve their social status (Watanabe 2019). This liberation has been achieved through enabling the provision of nursing care and a certain level of cure (medical procedures) which nurses can perform outside of hospitals (Ogama 2019), considering patients’ situation in the community to decide the role of Nurses (Mori 2019). The amendment was actual role expansion of nurses in team nursing, designed to facilitate access to timely care in the

*) Correspondence: Faculty of Health Sciences, Hokkaido University, Sapporo 060-0812, Japan
E-mail: noriyo@med.hokudai.ac.jp

community (Ono 2018).

However, Watanabe (2019) pointed out the current limitations of the system that include that there is a lack of a registered education facility which provides the system, and vague work sharing between the Registered Nurses who graduated from the training system and Nurse Practitioners who have completed a Masters’ level education course (Watanabe 2019).

While there has been discussion, no formal analysis of the policy has been undertaken. Several years have passed since this system was first started, and the effectiveness of what has been described as advanced nursing is reported, but only from the perspective of RNs who have completed the training and can perform the new skills (Matsuyama et al. 2017).

The aim of this paper is therefore to analyse this training system as a significant policy decision in Japan.

2. Method

The policy was analysed through utilisation of Walt and Gilson’s policy triangle (Figure 1). This framework was selected because the structure enables both analysis of policy (descriptive) and analysis for policy (prospective) from three aspects: “context,” “process” and “content.”

Walt and Gibson’s framework has the benefit of being a framework designed to work in the health-related context (Alharbi, Alotaibi & Lusignan 2016). As well the identification of the context, content and process the framework has the added dimension of consideration of the actors involved which is an integral factor in

understanding policy development (Robertson-James et al. 2017). Internet resources, e.g. whitepapers, the policy statement, and statistics were included to literatures in addition to related journal papers.

The analysis of this paper includes a contrast of this policy and current international trends in nursing in development of the Nurse Practitioner role to inform possible future policy intervention to increase access to affordable quality care for people in Japan.

3. Results

3.1. Political Context

3.1.1. Healthcare demand and supply in Japan

Japan is facing a vast demographic change. Recognised as one of the world-longest average lifespans with 81.09 years for men and 87.26 years for women in 2017 (MLHW 2018a), the percentage of people above 65 years old in Japan has soared in the five-year period 2012-2017 from 24.1% (2012) to 27.7% (2017). From the latest estimation, it will be increase to one in three (33.3%) Japanese being 65 years of age or older by 2036 (Cabinet Office (CAO) 2018). While these survey results have been celebrated nationally as a success of science-technological development (Bush 2012), the employable population, or potential local workforce has correspondingly decreased from 62.9% (2012) to 60.0% (2017) due to the total fertility ratio of 1.43 in 2017 (MLHW 2018a).

As an example of lack of hospital beds, several NICUs have at times refused to accept emergency maternal and/or infant admissions, using “No available NICU beds” as their reason to refuse access to care: the need to search for a bed has further delayed the initiation of medical treatment (Iwashita 2015; Eklund 2010). Yet, due to the educational time and cost, the MHLW’s attempt to create a healthcare network has not satisfied access to healthcare for technology-dependent children (Takanami 2017).

The rapid advance of healthcare technology and the structural shift of diseases from communicable to non-



Fig.1. Walt and Gilson's policy triangle

communicable affects current healthcare delivery. Traveling cost for high-tech medical practice in urban areas is an example of unfair distribution of healthcare. Hospitals in rural areas are struggling to find and retain medical practitioners, and they tend to become bankrupt after inevitable downsizing, because of difficulties to tackle the shortage of medical practitioners as an individual hospital (MLHW 2010). This may be partially attributed to physician's preference to stay in urban hospitals with high-technology, rather than rural areas. Another reason could be explained by the fact that of the overall 8,471 hospitals, 5,998 (70.8%) are private hospitals (MLHW 2016a). In 2005, at the Ministry committee level, the private hospitals role was agreed as non-profitable and on parity to public hospitals (MLHW 2005). Consequently, uneven distributions of healthcare services occur. Japan must immediately adjust the healthcare system to cope with current and future lack of services due to this ultra-aging and depopulation.

3.1.2. Cultural context from political perspective

(1) Gender Roles in related Law

Nurses used to be all females to serve for male dominant physicians by a law, called the Nurses Roles 1915 (Yamashita 2017). In Article 5, the current Act on Public Nurse, Midwives, and Nurses 1948 defines “the term ‘Nurse’ as used in this Act means a person under licensure from the Minister of Health, Labour and Welfare to provide medical treatment or assist in medical care for injured and ill persons or puerperal women, as a profession.” However, Article 37 continues, “Unless the attending physician or dental practitioner has instructed him/her to do so, a Public Health Nurse, Midwife, Nurse, or Assistant Nurse may not use medical equipment, give a person medicine or instructions about medicine, or take any other action that carries the risk of harming a person's health if it is not done by a physician or dental practitioner provided, however, that this does not apply when a Public Health Nurse, Midwife, Nurse, or Assistant Nurse provides emergency first-aid treatment, nor when a Midwife cuts an umbilical cord, administers an enema, or takes any other action concomitant with

practice as a Midwife.” Additionally, Article 31 (1) states that “no person other than a Nurse may practice the profession provided for in Article 5; provided, however, that this does not apply if said person practices such profession pursuant to the provisions of the Medical Practitioners Act or Dentists Act” (Japanese Law Translation 2012).

Historically, the fundamental thoughts of the nursing reform by General Head Quarter (GHQ) the Supreme Commander for the Allied Powers of the US in 1948 was, “A total duties of public health nursing, midwifery, nursing was true nursing, and physicians and nurses were corresponding relations” (Oishi 1997). Captain Grace Elizabeth Alt, Public Health and Welfare Section, Nursing Affairs Division of the GHQ, was a nurse who received education in John Hopkins University and Yale University (Oike 2017). In her publications, to nurse with own responsibility, to think ourselves, to provide services without self-sacrifice, to consider doctors as important partners, to build a nursing association, and expansion of curriculum in nursing were stated (Suzuki 2018; Oishi 1997). This declaration had high significance on Japanese nurses that “nurses were not subordinate to physicians and it recognised the originality of the nursing” (Yamashita 2017; Suzuki 2018).

Simultaneously, Medical Practitioners' Act 1948 was made under the GHQ's direction. In Article 17, “no person except a medical practitioner shall engage in medical practice.” Interestingly, Article 22 states, “where a medical practitioner finds it necessary to dispense and administer a medicine as a part of a patient's treatment, he/she shall issue a prescription to the patient or a person caring for the patient; provided, however, that this shall not apply where the patient or a person caring for the patient reports that it is not necessary to issue a prescription, or in any of the following, (v) where medicine is administered as an emergency measure necessary for treatment” (Medical Practitioners' Act 1948). To our current search, there is no research/comprehension of law found about what is “emergency” and responsibility of nurses in emergency.

Gender gap is minimising, but there is still the gender

difference depending on areas of specialities. The latest number of employed female RNs is 1,065,204, male RNs are 84,193 (7.9% of total) in 2016 (MHLW 2016b) as well as “pipeline leak,” which describes the situation that the percentages of females decrease in academic promotion, e. g. The percentages of female Assistant Professors (57.2%), female Lectures (31.7%), female Adjunct Professors (23.7%), and female Professors (15.4%) (Sakanashi 2018). The percentage of female physicians is 21.02% in Japan compared to 40.58% in Australia in 2017 (OECD 2019). The gender discrimination and underestimation of nursing care as a simple task compared to medicine, negatively affects RNs’ motivation to work, and could partially account for why more than 710,000 of potentiality nurses, nursing license holders are not working as a nurse in 2013 (MLHW 2013). The inner image of nurses must be renewed among nurses themselves and the third persons to improve nurses’ work environment and quality of care.

(2) Ineffective workload distribution

Overwork of physicians is another issue in Japan (Matsuda 2018). The average weekly working hours of employed physicians and General Practitioners were 55.7 hr and 51.3 hr, respectively (Suzuki 2017). Also, novice physicians have high ratio of stress reactions (Seo et al. 2017). The statement of the current Nursing Act as written is a prohibiting factor to have effective work-sharing between RNs and physicians, this is experienced from the physicians’ perspective as well. A physician’s research group pointed out that the specific nursing procedures suggested in the MHLW is limited, it may cause limitation to offering necessary practices in depopulated areas (Shinkawa et al. 2014).

3.1.3. Economic structure

(1) Healthcare expenditure

According to the 2019 Economic Outlook and Basic Stance for Economic and Fiscal Management, the government aims to achieve “desirable birth ratio of 1.8” and “no one force to leave their jobs for nursing care” to prevent an economic crisis by aging-depopulation (the

Cabinet Office (CAO) 2018). Economically, the Gross Domestic Product (GDP) in Japan ranks the third largest, following to the USA and China (IMF 2018). The percentage of healthcare expenditure to the GDP in Japan ranks the sixth highest in the world with 10.7%. (OECD 2017).

The number of physicians and nurses are 319,480 (MLHW 2018b, 0.25% of population), 1,558,340 (JNA319 2016, 1.23% of population), respectively, the physician to nurse ratio is 1:4.9. According to the OECD. Statistics, the number of nurses per 1,000 inhabitants was 11.3 in Japan (2016) and 11.6 in Australia (2016) (OECD 2017). The number of Licensed Professional Carers, who have licences to provide direct care except medical treatment mainly for primary care, is 1,623,451 (MLHW 2018) with the average wage about 40% of average in total (Iimori 2016). The MLHW commenced a subsidy for Licenced Professional Carers who continued their job more than 10 years to ease low average wage in 2018 (MLHW 2018).

The total number of employees in healthcare industry is 7,470,000 (Iimori 2016). The number of physicians per 1,000 inhabitants is 2.4, which is ranked thirty within thirty-five OECD member countries (OECD 2017). This indicates relatively large expenditure is utilised by small numbers of physician to satisfy needs of medical treatment, and it is not sustainable.

(2) Educational cost

Despite the shortages of GPs in rural areas, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) has been reluctant to increase the number of physicians. The actual number of medical universities increased was from 80 in 1981 to the 82 schools in 2017 (MEXT 2018). Whereas the number of nursing universities has continuously increased within a decade, from 156 in 2008 to 267 universities in 2017 among the 780 universities in total in Japan (MEXT 2018). This is equivalent to one-third of university has a division of nursing.

The MLHW’s other political actions to increase the number of nurses are: 1) creating educational support for

bachelor degree holders of other educational background who have working experience, and their financial support, 2) the nurse registration system and nurse centre to count actual number of nurses, 3) improving the work environment (MLHW 2016a). In 2015, the MLHW finally started a counting system for RNs at nurse centres in each prefectural Nursing Associations (MLHW 2016b). The MLHW also promotes Philippine nurses to work in Japan after the Economic Partnership Agreement (EPA) between the Republic of the Philippines and Japan in 2008 (Ministry of Foreign Affairs of Japan (MFA) 2008). Approximately 300 nurses have been entering in Japan annually (MLHW 2017). Recently, utilization of nursing robots is highlighted as a potential solution by the Ministry of Internal Affairs and Communications (MIC), instead of human nurses (MIC 2017).

(3) Reimbursement scheme

Every medical treatment, prescriptions, and examination were categorised in the Medical Treatment Fees, and the point (one point = 10 yen), official/universal price, were decided biannually by the consultative body of the MHLW, Central Social Insurance Medical Council. Association of health insurance union society (health insurance team) is comprised in 20 committees tripartite, seven people of the payment side and seven people of the medical treatment side including the Japan Medical Association, and six representatives of public interest. Pharmacists and dentists also have access to the scheme. Payment for nursing care is included in the Medical Treatment Fees as the patient-nurse ratio of the hospitals, e. g. 7: 1 or 10: 1. In 2003, Diagnosis Procedure Combination/Per-Diem Payment System (DPC/PDPS) was introduced in acute hospitals, using International Statistical Classification of Diseases and Related Health Problems (ICD-10) for classification of diagnosis. In 2016, DPC/PCPS registered hospitals were 1, 730 (MLHW 2018b), which was approximately 83% of total number of hospitals. However, this scheme is a treatment-based approach. To provide additional care which is not able to covered within the insurance regime, an individual price for visiting nursing is set (Kimata

2017). From this analysis of structure, it seems there is no accountable organization to satisfy nursing needs.

3.2. Policy Processes

3.2.1. Agenda setting and policy development

In 2005, Professor Kusama Tomoko, previously Dean of Oita prefectural University, organized an academic project team to develop the Nurse Practitioner (NP) Project (Fukuda 2014). Inspired from the global trend in nursing, she built a Master course curriculum for Nurse Practitioners in 2008 (Fujinai & Yamanishi 2015). The project team immediately applied to set up a designated district to institutionalize NPs in the Japanese nursing system (Fukuda 2014). In 2009, a regulation reform meeting of the government suggested the need of the introduction of the new roles such as NPs as a part of the re-examination of the healthcare supply system. The MLHW made a committee called “Promoting Team Medicine.” Professor Kikuko Oota at Keio University dedicated a research project called “Promoting work-sharing and collaboration between physicians and nurses: 2009 report,” funded by the MLHW (Oota 2009). Overall 53 hearings occurred as a consequence from her report. In the series of meeting, three agenda items, “increased burden of physicians,” “delay of diagnosis and commencement of treatment,” “long waiting time for outpatient wards” were focused on as priorities (Oota 2009).

In 2012, as a parallel part of the political campaign, the MLHW included nasal, oral, and tracheal suctioning and tube-feeding in a curriculum of Licenced Professional Carers (LPCs) at universities, colleges, and vocational schools as the scope of their practice under physician’s direction (MLHW 2012). Experienced Registered Nurses were employed as formal instructors of this skill development course for LPCs, which were conducted by social welfare committees. In 2015, the first students of LPCs who can perform suctioning without extra training have been graduated from the new curriculum, which enables RNs to share workload with LPCs (MLHW 2015).

3.2.2. Implementation

In June 2018, the Japanese Nursing Association (JNA) presented a plan to integrate this “Specific Procedure Training Course” into the current program for certified nurses by 2020 (JNA 2018). The course is integrated into a course for a Certified Nurse, who complete a 6 months daytime course with clinical practicum of at least 600 hours (JNA 2018).

Few papers have described the implementation of this Specific Procedure Training Course System from physician’s side. “There is no pay rise for NPs. NPs who chose not to become nursing administrators have to be rewarded properly” (Fujiwara 2017), a few physicians showed respects to the contribution of nurses, but it is not reflected on the reimbursement system yet.

3.2.3. Monitoring and enforcement

The number of registered training facilities (universities, hospitals etc.) were 40 in March 2017 and increased to 87 in October 2018 (MLHW 2018b). As a consequent, the number of nurses who completed the Specific Procedure Training Course was 259 in 2016, and increased to 324 in 2017 (MLHW 2018b). The number of trained RNs who took this course has been constantly increasing without finance/power related incentives. Unfortunately, instead of recognising nurse prescription, the medical expenditure deduction for self-medication was introduced in 2017 (MLHW 2017b). This might encourage patients’ prescription for their own health, reducing the medical cost. Yet it is controversial when patients take responsibility for their decision related to their lives in the current healthcare system.

3.2.4. Globalizing the policy process

For instance, in Australia, NPs were granted legislated access to the Medical Benefits Scheme and Pharmaceutical Benefits Scheme as providers in 2010 (Cashin 2014). A person’s health condition is on a continuum from bad to good, and impossible to separate. Thus, role sharing should be flexible to adequately provide required services by several healthcare providers. Kleiman et al. (2018) stated that, “the rate at which NPs

billed Medicare independently did not dramatically change with increased practice and prescribing autonomy in state legislation, which may be a key piece to alleviating some of the strain on the primary care workforce.” In international trend of NP researches, the current issue is not whether nurses have the right to access the reimbursement system, but the ratio of reimbursement independently. Simple imitation of policies from other countries is not appropriate, but there is a potential to utilise them as a stimulus for discussion of potential amendments and policy interventions in the Japanese context.

3.3. Policy Contents

3.3.1. The risks of Specific Procedure Training System

Although it is not the legal responsibility of medicine, the policy statement of the Japan Medical Association includes training Registered Nurses and Enrolled Nurses to protect the medical system in the community (JMA 2018). Whereas in August 2018, the Japan Federation of Medical Worker’s Unions warned of several risks of the Specific Procedure Training System; 1) the course has the risk to provide harm for patients, therefore nurses are exposed to suffer the risk, 2) there is a need to increase the number of physicians to satisfy healthcare needs, not nurses, 3) task shifting does not solve issues by lack of physician and nurses, 4) nurses are our colleagues, therefore their knowledge will be helpful to conduct team medicine, but actual practice is different story, 5) everyone has a right of learning, but doing medical procedures is a different story, it alienates nurses from nursing (Japan Federation of Medical Worker’s Unions 2018).

3.3.2. Security of practice

The NP curriculums at Masters level are organised by the Japan Association of Nursing Programs in Universities (JANPU), which was established in 1975 (JANPU 2018). In August 2011, the second phase of the development of Graduate School Education Promotion Measures were established, with the aim to ensure the

quality of education, to provide national and international information as well as to enhance roles of those who completed graduate school education (JANPU 2018). In line with the above, there are two streams to secure the quality of practices by graduate nurses: one-year course of Certified Nurses and the two-year NP curriculum in university Master courses.

4. Discussion

From this policy analysis, policy actors were several Ministries (the MLHW, the MEXT, the MFA, the MIC, and the CAO), and the Japanese Nursing Association as well as the Japanese Medical Association. The Specific Procedure Training Course System was a part of whole policy approach to address high demands for healthcare services due to ultra-ageing and depopulation. In addition to high demand the local governments' reduced attention to maintain the quality/quantity of nursing care delivery caused more than half of hospitals to become privatised. The demand for healthcare was outweighing medical capability under the current physician-led system, which appears in both acute and chronic healthcare facilities.

Chiarella (2002) pointed out the different attitudes when debating the scope of practice for nursing as following: 1) The permissive versus restrictive approaches and the question of expanding or extended roles, 2) Profession versus client focussed approaches to determine the scope of practice, 3) The use of competencies as a mechanism for defining scope of practice, 4) Overarching versus detailed statements about scope of practice (Chiarella 2002). Unfortunately, the Training Course was restrictive, profession-focused, skill-oriented, detailed-definition. This paternalistic attitude externalises nursing practices from nurses. Nurses who have an image of nursing practices as more freedom to create flexible care services, will maximize human resources in the primary care. For this reason, utilizing the freedom of learning as a human right and development of continuous life-long learning course are required. Additionally, to increase the number of highly trained

registered nurses, free distance education or free access to education to maintain their knowledge and techniques will be effective incentives, and it also reduces economical/time burden for motivated nurses.

Eklund (2010) indicated that there are three barriers to the introduction of NP roles: the restrictive nature of the nursing role, frequent transferring among departments, and traditional methods for work sharing (Eklund 2010). But this wrong tradition can be changed. Registered Nurses are able to improve the image of themselves and the post-graduate education system, including carrier development system, to efficiently provide care for peoples who wait for their care.

Using Walt and Gilson's policy triangle (Buse, Melt & Walt 2005), we found that RNs are expected to take significant roles to cover predicted demands of healthcare. RNs are not defined as subordinates of physicians in Article 5 of Community Nurse, Midwife, Nurse Act 1948, but are conceived as under the direction of physicians. It is completely opposite from the GHQ's, Captain Grace Elizabeth Alt's intention (Oishi 1997; Yamashita 2017). Nowadays the gender gap is shrinking compared to the time in 1948 when the act was written, and there seems huge discrepancy among comprehensions of the law, actual nursing practice, and global trend of NPs' scope of practice. Professor Kusama's contribution to introduce NP roles opened the policy window. The influence might spread to the average wage of two genders. Curriculum design and goal setting of graduates to achieve a sustainable healthcare system were faculty's responsibilities. The JANPU organised the educational measurements for graduate nurses which secures the quality of advanced nursing practices.

Two flows of new work-sharing were found for RNs, one is with physicians by providing the 38 specific procedures (MLHW 2015), and the other is with Licenced Professional Carers by sharing suctioning and tube feeding (MLHW 2012). The development process of this Specific Procedure Training Course System has separated into two streams; the Certified Nurses (JNA 2018) and the NP curriculum in university Master courses (JANPU 2018). From this decision made, the NP course

is considered as the overarching course, which attempts to maximise the capability of nurses.

Along with introduction of the freedom of learning areas and the development of the continuous life-long learning systems for sustainable professional development, a direct payment system and freelance nurse system might be effective to satisfy quantity and quality of healthcare needs in the community. Advantages of this approach is, firstly, numerous amounts of primary healthcare costs for taking an order from physicians could be reduced. Registered Nurses can save patients’ time and burden of taxation. Secondly, this direct payment system for Registered Nurses might rise nurses’ motivation. It may increase confidence as a profession, who receive rewards by providing nursing care. Finally, NPs would also have access to medical reimbursement when access of RNs’ starts. RNs and NPs can collaborate as one united group to contribute to the co-creation of an affordable/sustainable healthcare system.

5. Conclusions

Through the policy analysis of the “Specific Procedure Training Course System,” it was identified that there are parallel efforts made to increase the number of nurses and performance of nurses by Ministries in Japan. The contribution of Professor Kusama who opened the policy window was huge.

The current medical provision system needs six amendments as following: 1) establish a responsible regional organization for satisfying holistic care demands, 2) respect nursing educator’s autonomy for curriculum development for future nursing provision, 3) assure freedom of learning areas to adjust nursing knowledge and techniques for patients’ need, 4) reduce financial burden for lifelong learning, 5) introduce a flexible role shift system without the requirement for law modification to accommodate constant technological development, and 6) innovate a new affordable/sustainable reimbursement scheme, encompassing a direct payment system for direct care providers. Further

research is required to identify concrete policy approaches and measure outcomes.

Acknowledgement

This paper was funded by the University Young Researcher’s International Collaborative Research Fund in 2018.

References

- Alharbi, N. S., Alotaibi, M. and de Lusignan, S. (2016), “An analysis of health policies designed to control and prevent diabetes in Saudi Arabia,” *Global journal of health science* 8(11)
- Buse, K., Mays, N. and Walt, G. (2005), *Making Health Policy*, Open University Press, England, 4-18
- Bush, J. (2012), “The Consequences of Low Fertility, Aging, and Depopulation in Japan,” *Bulletin of Faculty of Management Information Sciences*, Jobu University 37, 17-34
- Cabinet Office (CAO) (2018), “Aging and society white paper,” Retrieved April 9, 2019, from https://www8.cao.go.jp/kourei/whitepaper/w-2018/html/zenbun/s1_1_1.html (in Japanese)
- CAO (2019), “Fiscal 2019 Economic Outlook and Basic Stance for Economic and Fiscal Management,” Retrieved April 9, 2019, from <https://www5.cao.go.jp/keizai1/mitoshi/2019/h310128mitoshi-e.pdf> (in Japanese)
- Cashin, A. (2014), “Collaborative arrangements for Australian nurse practitioners: A policy analysis,” *Journal of American Association of Nurse Practitioners* 26(10), 1-5
- Chiarella, M. (2002), “Selected Review of Nurse Regulation: National Review of Nursing Education 2002,” *Nursing Regulation and practice*, Commonwealth of Australia, 51-57
- Eklund, W. (2010), “Japan and Its Healthcare Challenges and Potential Contribution of Neonatal Nurse

- Practitioners,” *Journal of Perinatal & Neonatal Nursing* 24(2), 155-166
- Fujinai M. and Yamanishi, H. (2015), “Legalization of Nurse Practitioners’ Master Course,” *Nursing Research (Japan)* 48(5), 410-419 (in Japanese)
- Fujiwara, Y. (2017), “Current situation and issues of Perioperative Nurse Practitioners in Aichi Prefectural University Hospital,” *Japan Society for Clinical Anesthesia* 37(7), 844-851 (in Japanese)
- Fukuda, H., Miyauchi, S., Tonai, M., Ono M., Magilvy J. K. and Murashima, S. (2014), “The first nurse practitioner graduate programme in Japan,” *International Nursing Review* 61(4), 487-490
- Iimori, N. (2016), “Expansion of service industry and employment,” *Japan Institute for labour Policy and Training*, January, 5-15 (in Japanese)
- International Monetary Fund (IMF) (2018), “World Economic Outlook Databases,” Retrieved April 9, 2019, from [https://www.imf.org/en/Publications/SPROLLS/world-economic-outlook-databases#sort = %40imfdate%20descending](https://www.imf.org/en/Publications/SPROLLS/world-economic-outlook-databases#sort=%40imfdate%20descending)
- Iwashita, T. (2015), “Current situation of perinatal/maternal medicine at Kyorin University Hospital,” *Journal of the Kyorin Medical Society* 46(1), 37-40 (in Japanese)
- Japan Association of Nursing Programs in Universities (JANPU) (2018), “Committee for Creating Evaluation System on Nursing Programs in Universities,” Retrieved April 9, 2019, from <http://www.janpu.or.jp/hyouka/english/index.html> (in Japanese)
- Japanese Law Translation (2012), “Act on Public Health Nurses, Midwives, and Nurses,” Retrieved April 9, 2019, from <http://www.japaneselawtranslation.go.jp/law/detail/?id=2075&vm=04&re=2&new=1>
- Japanese Nursing Association (JNA) (2016), “Nursing in Japan,” Retrieved April 9, 2019, from <https://www.nurse.or.jp/jna/english/nursing/system.html>
- JNA (2018), “Specific Procedure Training Course,” Retrieved April 9, 2019, from <https://www.nurse.or.jp/nursing/education/tokuteikenshu/index.html> (in Japanese)
- Japan Federation of Medical Workers’ Unions (2018), “The risks of Specific Procedures performed by Nurses,” Retrieved April 9, 2019, from <http://irouren.or.jp/publication/learning/#004396> (in Japanese)
- Japan Medical Association (JMA) (2018), “Education for RNs, ENs to Promote Community Health,” Retrieved April 9, 2019, from http://www.med.or.jp/doctor/region/kango_yousei/002208.html (in Japanese)
- Kimata, M. (2017), “Research and Study on Actual Situation of Visiting Nursing Outside of the Insurance,” Benefits, *Journal of Japan Academy of Nursing Sciences* 37, 329-335, Retrieved April 9, 2019, from https://www.jstage.jst.go.jp/article/jans/37/0/37_37329/_pdf/-char/ja
- Kleiman, R., Moghtaderi, A. and Oines, J. (2018), “The Impact of Changing Scope of Practice Laws on Nurse Practitioner Billing Patterns,” School of Medicine and Health Sciences Presentations, Spring, 248, Retrieved April 9, 2019, from https://hsrc.himmelfarb.gwu.edu/gw_research_days/2018/SMHS/178/ (in Japanese)
- Matsuda, S. (2018), “Working style revolution of medical practitioners impacts on medical system in Japan,” *Hospital* 77(4), 329-332 (in Japanese)
- Matsuyama, T., Sato, J. and Kusama, T. (2017), “A survey for the work environments of nurse practitioner: Focusing on post of nurse practitioner,” *Journal of Nursing Science (Japan)* 15, 7-14
- Medical Practitioner’s Act 1948, Retrieved April 9, 2019, from <http://www.japaneselawtranslation.go.jp/law/detail/?id=2074&vm=04&re=2&new=1>
- Ministry of Education, Culture, Sports, Science and Technology (MEXT) (2018), “The number of Universities,” Retrieved April 9, 2019, from http://www.mext.go.jp/b_menu/toukei/002/002b/1403130.htm (in Japanese)
- Ministry of Foreign Affairs of Japan (MFA) (2008), “Agreement Between Japan and the Republic of the Philippines for an Economic Partnership,” Retrieved April 9, 2019, from <https://www.mofa.go.jp/region/asia-paci/philippine/epa0609/index.html>

- Ministry of Internal affairs and Communications (MIC) (2017), “Current examples of service robots,” Retrieved April 9, 2019, from <http://www.soumu.go.jp/johotsusintokei/whitepaper/ja/h28/html/nc131520.html> (in Japanese)
- Ministry of Health, Labour, and Welfare (MLHW) (2005), “Future medical corporation playing a key role of the leading figure of the medical system,” Retrieved April 9, 2019, from <https://www.mhlw.go.jp/shingi/2005/07/s0722-9a.html> (in Japanese)
- MLHW (2010), “Business Integration of Private Hospitals,” Retrieved April 9, 2019, from https://www.mhlw.go.jp/topics/bukyoku/isei/igyoku/igyokeiei/dl/houkokusho_h22_gappei_01.pdf (in Japanese)
- MLHW (2012), “Tracheal Suctioning and Tube-feeding Training,” Retrieved April 9, 2019, from https://www.mhlw.go.jp/seisakunitsuite/bunya/hukushi_kaigo/seikatsuhogo/tannokuyuin/04_kensyuu_01.html (in Japanese)
- MLHW (2013), “Securing the number of nursing staff,” Retrieved April 9, 2019, from https://www.mhlw.go.jp/file/05-Shingikai-12601000-Seisakutoukatsukan-Sanjikanshitsu_Shakaihoshoutantou/0000025363.pdf (in Japanese)
- MLHW (2015), “Specific Procedure Training Course System,” Retrieved April 9, 2019, from <https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000070423.html> (in Japanese)
- MLHW (2016a), “Medical facilities survey,” Retrieved April 9, 2019, from https://www.mhlw.go.jp/toukei/saikin/hw/iryosd/m16/dl/is1601_01.pdf (in Japanese)
- MLHW (2016b), “Securing nursing staff,” Retrieved April 9, 2019, from <https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000095525.html> (in Japanese)
- MLHW (2017a), “Acceptance of the Filipino nurse, care worker candidates,” Retrieved April 9, 2019, from <https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000025247.html> (in Japanese)
- MLHW (2017b), “Self-medication,” Retrieved April 9, 2019, from <https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000124853.html> (in Japanese)
- MLHW (2018a), “Abridged lifespan table,” Retrieved April 9, 2019, from <https://www.mhlw.go.jp/toukei/saikin/hw/life/life17/index.html> (in Japanese)
- MLHW (2018b), “Abstract of revision of the medical payment system,” Retrieved April 9, 2019, from <https://www.mhlw.go.jp/file/06-Seisakujouhou-12400000-Hokenkyoku/0000197983.pdf> (in Japanese)
- Mori, K. (2019), “Geriatric Patients with Diabetes Mellitus Nursing: Nurses roles for Primary Care and collaboration,” *Journal of Japan Academy of Diabetes Education and Nursing* **23**(1), 78-81 (in Japanese)
- Organization for Economic Co-operation and Development (OECD) (2017), “Health spending,” Retrieved April 9, 2019, from <https://data.oecd.org/healthres/health-spending.htm>
- OECD (2018), “Health Care Resources,” Retrieved April 9, 2019, from https://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT
- OECD (2019), “Nurses (indicator),” Retrieved April 9, 2019, from <https://data.oecd.org/healthres/nurses.htm>
- Ogama, N. (2018), “Bibliographical Consideration of Competency of Nurse Practitioners involved in Primary Care,” *Bulletin of Social Medicine* **35**(1), 1-10 (in Japanese)
- Oike, M. (2017), “A study of life story of nursing educators in the era of the advanced nursing education,” Ph.D. thesis of Meisei University **17** (in Japanese)
- Oishi, S. (1997), “Nursing Philosophy of Grace Elizabeth Alt,” *Bulletin of Department of Nursing School of Health Science of Tokai University* **3**, 3 (in Japanese)
- Ono, M. (2018), “Ethics as the basis for nurses to expand their role: Revision of Nurses’s law and Ethical Issues, ethical response,” *Japan Academy of Nursing Ethics* **10**(1), 88-89 (in Japanese)
- Oota, K. (2009), “Promoting work-sharing and collabo-

- ration between physicians and nurses: 2009 report,” Retrieved April 9, 2019, from <https://www.mhlw.go.jp/shingi/2009/08/dl/s0828-1d.pdf> (in Japanese)
- Robertson-James, C., Sawyer, L., Núñez, A., Campoli, B., Robertson, D., DeVilliers, A., ... and Alexander, S. (2017), “Promoting policy development through community participatory approaches to health promotion: The Philadelphia Ujima experience,” *Women's health issues* 27, S29-S37
- Sakanashi J. (2018), “Gender Policy of Tertiary Education and Science Technology in Japan,” *Bulletin Paper of Fukuoka Prefectural University* 26 (2), 19-35, Retrieved April 9, 2019, from <http://id.nii.ac.jp/1268/00000385/> (in Japanese)
- Seo, E., Ogawa, R., Ito, M., Sanuki, M., Maeno, T. and Maeno, T. (2017), “Comparative analysis of the depressive state, stressor, and stress-relieving factors of novice first year residents and established residents in Japan,” *Medical Education (Japan)* 48 (2), 71-77 (in Japanese)
- Shinkawa, Y., Kai, K., Kouno, Y., Fukuda, H., Eduki, Y., Miyauchi, S., Ono, M., Tonai, M. and Murashima, S. (2014), “Qualitative study describing the new practice of a ‘Tokutei Kangoshi’ (Japanese nurse practitioner) working at a primary care community hospital,” *Journal of Nursing Science (Japan)* 12, 44-52, Retrieved April 9, 2019, from https://doi.org/10.20705/jjnhs.12.2_44 (in Japanese)
- Suzuki, S. (2017), “Exhausting Physicians Employed in Hospitals in Japan Assessed by a Health Questionnaire,” *Journal of Occupational Health (Japan)* 59(4), 107-118 (in Japanese)
- Suzuki, N. (2018), “A book review for Nursing and women’s labour in modern Japan by Mai Yamashita,” Retrieved April 9, 2019, from <http://id.nii.ac.jp/1410/00013419/> (in Japanese)
- Takanami, C. (2017), “Public Policy on Children Home Medicine in Sapporo,” Retrieved April 9, 2019, from https://eprints.lib.hokudai.ac.jp/dspace/bitstream/2115/65707/1/APPS11_10.pdf (in Japanese)
- Yamashita, M. (2017), “Nursing and women’s labour in modern Japan,” *Yoshikawa koubunkan publication*, Tokyo 20 (in Japanese)
- Watanabe, T. (2019), “Eight years development of the graduate school for nurse practitioner,” *Bulletin of Department of Nursing, Tohoku Bunka Gakuen University* 8(1), 27-42 (in Japanese)