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＜ Review ＞

Health policies to facilitate "team iryo" (teamwork in healthcare) in Japan

TANEDA Kenichiro

Department of International Health and Collaboration, National Institute of Public Health

Abstract

Cooperation among many types of professionals is indispensable in health-related fields. The phrase, "team iryo (teamwork in healthcare)," which has already taken root at health, medical and welfare sites, began to be used frequently from the 1970's. In 1975, a workshop titled "Teamwork for Doctors and Nurses at McMaster University" was held at the former National Institute of Health Service Management. Also in the field of public health, a multi-disciplinary practical course called "joint field training" was started at the former Institute of Public Health in 1961. In 2010, the "Committee for Promoting Teamwork in Healthcare" was established in the Ministry of Health, Labour and Welfare, and additional medical service fees for teamwork in healthcare started for nutrition support and respiratory care teams. In April of 2024, the limits to overtime work for doctors will be introduced as part of working practice reforms, so the promotion of cooperation among many types of professionals, such as task shifting/sharing, is essential, and a review of the existing systems is ongoing. At the same time, since the prevention of medical accidents is vital for medical personnel, team training is essential to ensure safe, efficient and effective patient care.

keywords: team iryo, teamwork, health policies, health care, labor reforms

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I. Introduction

There are many professions represented in health, medical and welfare facilities. In medical institutions, particularly large hospitals, there are more than 15 professions requiring national certifications (per the status-related laws including Act on Public Health Nurses, Midwives, and Nurses or Medical Practitioners Act), and those engaged in such professions contribute to medical care while directly or indirectly working with patients and their families (see Table 1). Therefore, many different professionals inevitably need to cooperate with one another. However, medical accidents were found to be increasing since around 2000, and analytical findings of such accidents suggest that a large portion of medical safety depends on teamwork (Figure 1) [1]. This article reviews mechanisms, systems and ongoing efforts for promoting healthcare teamwork in Japan.

Table 1　Professionals working at medical institutions

A) Requires national certification: Doctor, dentist, nurse, midwife, public health nurse, radiographer, clinical laboratory technician, health laboratory technician, physical therapist, occupational therapist, orthoptist, clinical engineer, artificial limb fitter, dental hygienist, dental technician, paramedic (emergency medical technician), speech therapist, pharmacist, managerial dietician, social welfare worker, care worker, mental health social worker, certified psychologist, etc.
B) Does not require national certification: Nurse's aid, administration staff, health information manager, medical office work assistant medical social worker, clinical psychologist (non-national qualification), driver (nursing service driver), cleaning service worker, cook, linen staff, guard, security staff, boiler engineer, retail clerk, etc.

Corresponding author: TANEDA Kenichiro
2-3-6 Minami, Wako, Saitama 351-0197, Japan.
Tel: 048-458-6150
Fax: 048-469-2768
E-mail: taneda.k.aa@niph.go.jp

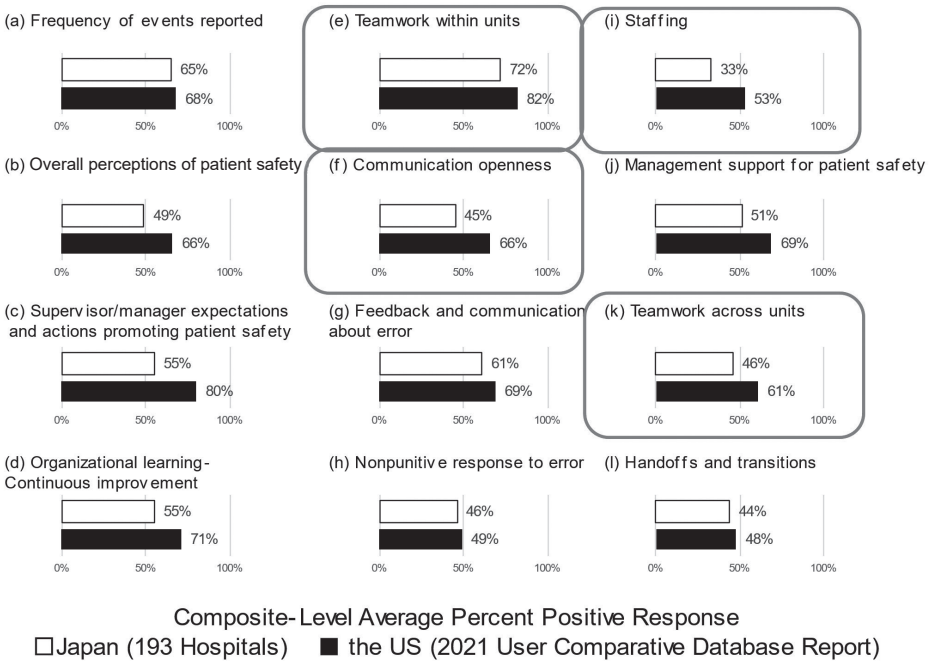

Figure 1 Teamwork Issues of Patient Safety Culture in Japan (as of March 31, 2021) and the United States

II. The clinical awareness of teamwork necessity in healthcare at clinical level

The phrase "team iryo (teamwork in healthcare)" is often heard in various medical fields in Japan. Some literature suggests that the phrase came gained popularity in the 1970's. For example, on July 28, 1975, Professor Howard S. Barrows gave a speech entitled "Teamwork for Doctors and Nurses at McMaster University" at a workshop held at the former National Institute of Health Service Management (established in 1949, reorganized in 1961 and integrated into the current National Institute of Public Health in 2002). Professor Kenzo Kiikuni who took on the roles of presenter and interpreter at the workshop stated in the opening sentences of the lecture text, "recently, demand for teamwork in healthcare is growing, but the reality in Japan is that not even the first step toward it has been taken although much has been said about it" [3]. On July 5 of the same year (before this workshop), an "international seminar (panel discussion) relating to medical care and education: Medical Staff Teamwork for Providing Better Healthcare" had been held by the Life Planning Center (presenter: Professor Shigeaki Hinohara). These suggested that, even back then, the importance of teamwork in healthcare had already been recognized.

On the other hand, with regard to "team nursing" specific to hospital nursing, a related study was started by Professor Lambertsen on the faculty of Columbia University's, Nursing Education Department, playing the central role around 1949. The details of the study, "Introduction to Management – Team Nursing," were presented by Choko Tsukamoto, of the former National Institute of Health Service Management, in the journal "Nursing Education" in September 1962. In the article's introduction, she stated, "studies relating to team nursing have become very prevalent these days" and posed the question, "how should nursing staff be organized to realize the most effective patient-oriented nursing?" Although her study was limited to nursing, it is interesting to note that a study on team-based cooperation had already started and the phrase "patient-oriented" was already in use at that time.

Moreover, in the field of public health, the importance of cooperation among many professionals including public health nurses has been pointed out since long ago. For example, multi-disciplinary practical training called "joint field training" started in 1961 at the former Institute of Public Health (an institute for cultivating human resources in the public health field, established in 1938 and integrated into the current National Institute of Public Health in 2002) [2]. According to an annual report of the Institute of Public Health back then, the main purpose of the joint field training was to realize "team-approach for public health practices by team training." The team consisted of a doctor, a pharmacist, a veterinarian, a public health nurse, a midwife, a nurse, dietician and health educators."

At healthcare facilities, the necessity of teamwork and cooperation has been recognized and efforts related to that

approach have been made at least for about half a century. In recent years, team-based cooperation has become essential not only inside a single medical institution but beyond to include other medical institutions.

III. How "teamwork in healthcare" became necessary

What was the background that caused the necessity of team-based cooperation? The background includes factors such as the emergence of various specialist jobs (professions) for dealing with various issues and needs of patients, functional differentiation and linkages among medical institutions, and working practice reform for doctors (for shorter work hours).

Head of the Health Policy Bureau said in his opening remarks at the 1st Review Committee for Promoting Teamwork in Healthcare held in 2009 as follows [4]:

"The situation in the medical field, a field about which the general public are highly interested, is becoming increasingly severe due to the aging population combined with diminishing numbers of children, the sophistication and complexity of medical technologies, and shortages of locally practicing doctors. Amid such a situation, the voices of people calling for an improvement in the quality of medical services are growing stronger year by year. Given the current situation and in consideration of how safe and high-quality medical services may efficiently be provided to patients and their families, I believe that developing a system in which each person engaged in medical services can fully perform their professional abilities in teams is very important. Thus, upon an instruction from the Minister of Health, Labour and Welfare, it was decided that a committee for reviewing future cooperation and coordination among different medical professionals be installed. That has led to the reason for today's review meeting. I would like all committee members to take part in adequate discussions to promote teamwork among medical experts, including doctors and nurses and other's from a broad perspective and in consideration of the current situation."

IV. The administrative awareness of teamwork necessity in healthcare and tasks at national level

1. "Close cooperation" required by the status laws

The interim report on March 20, 1987 "Meeting for Review of How the Qualification System for New Medical Professions Should Work" stated, "in light of the importance of institutionalizing new medical professions, medical services in the future will be untenable without the participation of many people, each bringing with them specialized professional skills. Such specialization will become a trend to some extent, and so it is necessary to establish and maintain cooperative relationships among various medical professionals. This point requires particular attention in the establishment of a qualification system." The following is an example:

[Example]: The Clinical Engineers Act (Act No. 60 of 1987), (cooperation with other medical experts)

Article 39 Clinical engineers shall cooperate closely with physicians and other medical experts in the scope of their own while endeavoring to ensure appropriate medical services.

In this instance, the provision, "close cooperation with doctors and other medical experts" in the creation of the new profession was covered in the Act. The fact that a provision requiring substantial teamwork in healthcare was added to the status laws, even though the phrase "teamwork in healthcare" is absent, is significant.

In addition to the Clinical Engineers Act, similar provisions were included in the Artificial Limb Fitters Act (1987), Emergency Life-saving Technicians Act (1991), Radiology Technicians Act (revised, 1993), Orthoptists Act (revised,1993), Speech-Language Hearing Therapists Act (1997), etc.

2. "Teamwork in healthcare" mentioned in the Social Security Council's Medical Subcommittee

The Social Security Council's Medical Subcommittee's purpose is to deal with matters under its jurisdiction specified by the Medical Care Act. "Opinions regarding Medical Care Delivery Systems" on December 8, 2005 specified the following: "Medical care is integrated into the entire cycle of human life, beginning from prenatal care, pediatric care, and through subsequent care including treatment of disease, preventive measures based on good health promotion, continuous nursing-care service for patients with chronic diseases and hospice care. Throughout life, professionals and volunteers in medical and welfare fields, family and various other persons are involved. Therefore, it is necessary for doctors and others from each medical field to cooperate and promote teamwork while performing their specialized skills. Additionally, each region must establish a system for cooperation and coordination among various specialties with a single patient-centered approach. The fact that the necessity of "teamwork in healthcare" was stated clearly. It is notable that the necessity of establishing a "system for cooperation and coordination centering around patients in each region" was also mentioned, emphasizing "each region," beyond each medical institution and the importance of an "patient-centered" approach.

3. Ministry of Health, Labour and Welfare's medical vision

In 2008, due to the necessity of a reform to secure adequate healthcare and physicians locally, a meeting, "Visions for Reassuring and Hopeful Medical Services" was held under the minister in January, and once again in June, with discussion on how medical services should be compiled [5]. At the same time, the Minister of Health, Labour and Welfare mentioned the necessity of a concrete vision, saying that discussions at the meeting would affect the future of medical services. As stated, the vision, the "importance of promoting interdisciplinary cooperation and teamwork in healthcare in which professionals (while respecting one another's specialties), information is shared efficiently, close cooperation is built and the heavy workloads of hospital physicians are mitigated (while overall safety, security and satisfaction are exists among patients, families and healthcare professionals)" and the necessity of concrete promotion of the above were emphasized.

4. Ministry of Health, Labour and Welfare's Review Committee for Promoting Teamwork in Healthcare

In August 2009, the Review Committee for Promoting Teamwork in Healthcare consisting of experts was established under the Minister of Health, Labour and Welfare to discuss what form cooperation and coordination among physicians, nurses and others should take, given the situation in Japan. By March 2010, 11 review meetings were held. On March 19, 2010, Promotion of Teamwork in Healthcare (a review report "Promotion of Teamwork in Healthcare") was compiled. The report included the following basic concepts:

- ○ Team iryo (teamwork in healthcare) is generally understood as follows: "Various medical staff having high expertise share goals, information and tasks in complementary cooperation of one another while providing medical services that precisely match the situation of each patient."
- ○ While patients and their families' demands for quality, reassuring secure and safe medical services are increasing, the exhaustion of medical facilities due to increased workloads (the result of increasingly sophisticated and complicated medical work), have been pointed out. Thus, while the basic question often asked today is "what form should medical services take," the keyword "team iryo (teamwork in healthcare)" is attracting attention and is expected to change the face of medical care in Japan.
- ○ Moreover, efforts for enhancing knowledge and skills among medical staff and the promotion of treatment standardization utilizing specified guidelines and protocols will form the basis for promoting teamwork in healthcare. Efforts for putting teamwork in healthcare into practice have already begun at various medical facilities.
- ○ To realize the high-quality medical services that patients and their families demand, paradigm changes, such as emphasis on the enhancement of the expertise/specialty of each medical staff member and reintegrating them into a team effort are necessary.
- ○ Concrete gains from teamwork in healthcare include (1) improvements in medical and quality of life, by way of early detection, emphasis on recovery promotion and prevention of progressive diseases, (2) mitigation of workloads of medical caregivers through improvements in efficiency and (3) improvements of safety through organization and standardization.
- ○ To promote future teamwork in healthcare across the nation, concerned parties must from their respective positions establish the following basic criteria: (1) Improvements in the expertise of each staff member, (2) expansions of staff member's role and (3) complementary cooperation among medical staff.
- ○ Caution is required so that the promotion of teamwork in healthcare will not result in overburdening any part of the medical team or impair their safety. In order to drastically change medical services in Japan, continuous efforts for promoting teamwork at each facility, role sharing and coordination among the facilities, securing necessary medical staff, establishing a qualification system for medical specialists (including general practitioners) and coordinating between medical and nursing services are essential.

5. Ministry of Health, Labour and Welfare's Council for Promoting Teamwork in Healthcare and Working Group for Promoting Teamwork in Healthcare

In response to the report "Promotion of Teamwork in Healthcare" by the aforementioned Review Committee for Promoting Teamwork in Healthcare, the Ministry of Health, Labour and Welfare held 20 meetings for promoting teamwork in healthcare from May 2010 to October 2013 (these were intended to prepare for the initialization of concrete measures) [7]. Under the Council for Promoting Teamwork in Healthcare, the Working Group for promoting Teamwork in Healthcare was established, with meetings held 14 times from October 2010 to September 2014.

In June 2011, at the 7th meeting for promoting teamwork in healthcare, it was decided to carry out a "verification project for teamwork in healthcare" as a measure for promoting teamwork and the "Basic Concept of Teamwork in Healthcare and Practical Cases" was compiled. Practical cases were classified into 11 fields. They suggested that teamwork in healthcare be put into practice in the following fields: (1) acute-stage, (2) chronic-stage, (3) home-care, (4)

infection control, (5) nutrition support, (6) pharmaceutical & drug treatment, (7) medical-dental coordination, (8) disease-specific, (9) interregional cooperation, (10) hospital management and (11) others.

V. Mechanism for promoting teamwork in healthcare: Medical service fees

While various review meetings have been held, medical service fees are being utilized as a mechanism for vigorously promoting teamwork in healthcare. For example, in assessing a comprehensive rehabilitation plan, professionals such as physicians, nurses, physical therapists, occupational therapists, speech therapists and social welfare workers are required to cooperate in preparing a comprehensive rehabilitation implementation plan and assess its effectiveness and methods for implementation. Additional medical service fee has been paid to teamwork-based healthcare, for example to nutrition support teams and respiratory care teams since April 2010 and to psychiatry liaison teams since April 2012 (see Table 2).

VI. Reform of working practices of doctors

In April 2024, the reform of working practices of physicians will take effect and their overtime work will be regulated [8]. In order to reduce the current overtime hours of doctors, the promotion of cooperation with other professionals such as task shifting/sharing is essential. In order for physicians' work to be properly delegated, legal work-restrictions must be reviewed. For example, the reviews have made it possible for nurses who have taken "training for specified (designated) duties" to perform 38 duties requiring specific practical understanding, the ability to assess and judge situations and utilize high-level professional knowledge and skills. These are included in the 21 categories below in accordance with relevant procedures (see Table 3).

Professions expected to promote task shifting/sharing through additional legislative amendments include radiographer (setting of intravenous lines, etc.), clinical laboratory technician (setting of intravenous lines, etc.), clinical engineer (setting of intravenous lines, etc.), paramedic (emergency procedures for outpatients), midwife (for inpatients and outpatients), pharmacist (dispensing drugs in operating room, hospital ward, etc., prescription proposals and instructions), and medical clerk (persons engaged in clerical work per a physician's instructions, such as vicarious medical record inputs).

VII. Conclusion

Groups can be formed when various professionals gather through a variety of mechanisms or systems that promote teamwork in healthcare, but such groups are not true "teams" yet. In order to put into practice "teamwork in healthcare" as it's been called for over half a century, such mechanisms and systems alone do not suffice. In fact, there can be no end to medical accidents due to inadequate teamwork [8]. Not every person inherently possesses the tools for team cooperation. Such skills must be learned before they are put it into practice. By fostering a culture of safety in which each team makes the safety of patients a priority, the creation of a safe medical environment for patients and a comfortable working environment for medical personnel becomes possible. Medical institutions are required through the medical service fee system to provide training for patient safety to every staff member and are expected to utilize this training to promote true teamwork in healthcare that is capable of ensuring patient safety.

Table 2 Medical service fees for promoting teamwork and cooperation in healthcare in various scenarios

− Medical service fees for promoting cooperation among various professionals in a hospital
● Fee paid for assessing a comprehensive rehabilitation plan
− Medical service fees additionally paid to a nutrition support team, respiratory care team and psychiatry liaison team
− Medical service fees additionally paid for infection prevention measures (i.e., establishment of a hospital infection control team), palliative care medical examinations (by a symptom relief team), dysphagia rehabilitation (by various professionals with expertise in supporting the recovery of eating and swallowing functions), for adjustment for hospital discharge (coordination among nurse, occupational therapists, mental health social workers, social workers, certified medical psychologists, etc.), and for dementia care (properly handled by nurses and other professionals with expertise)
● Promotion of dialogues between medical workers and patients
− Medical service fees added to improve patient support systems
● Promotion of cooperation/coordination among medical institutions
− Medical service fees additionally paid for supporting hospital admission/discharge duties
− Medical service fees additionally paid for interregional cooperation for child medical care during night time and holiday
− Medical service fees additionally paid for interregional cooperation for infection prevention measures and for medical safety measures

Table 3 Specified procedural categories and specified duties for nurses to conduct under doctors' orders

● Procedures related to respiratory apparatuses (securing airway)
− Positional adjustment of endotracheal tube for oral or for nasal cavity insertion
● Procedures related to respiratory apparatuses (for artificial respiratory therapy)
− Modifications of invasive positive airway pressure ventilation settings
− Modifications of non-invasive positive airway pressure ventilation settings
− Dosage adjustments of sedatives administered to patients under artificial respiratory care
− Ventilator weaning
● Procedures related to ventilator (prolonged respiratory support)
− Replacement of tracheal cannula (tracheostomy tubes)
● Procedures related to circulatory organs
− Operation and control of temporary pacemaker
− Removal of temporary pacemaker lead
− Operation and control of percutaneous cardiopulmonary support devices
− Adjustment of the frequency of supports at the time of weaning from intra-aortic balloon pumping
● Procedures related to pericardial drainage management
− Removal of pericardial drains
● Procedures related to thoracic drainage management
− Setting and modification of the force of a continuous suction unit inside low-pressure thoracic cavity
− Removal of thoracostomy tubes
● Procedures related to abdominal cavity drainage management
− Removal of abdominal cavity drainage tube (including the removal of puncture needle placed inside abdominal cavity)
● Procedures related to fistula management
− Replacement of gastric fistula catheter, intestinal fistula catheter or gastric fistula button
− Replacement of bladder fistula catheter
● Procedures related to catheter care for nutrition (central intravenous catheter care)
− Removal of central intravenous catheter
● Procedures related to catheter care for nutrition (management of peripherally inserted central intravenous catheter)
− Peripherally inserted central intravenous catheter
● Procedures related to wound management
− Removal of a dead tissue with no blood flow in treatment of bedsores or chronic wounds
− Negative-pressure wound therapy
● Procedures related to drainage of wound sight management
− Removal of wounded area drain tube
● Procedures related to arterial blood gas analysis
− Blood sampling by direct artery puncture
− Securing radial artery line
● Procedures related to dialysis management
− Operation and management of a hemodialyzer or hemodiafiltration-dialysis device in an acute blood purification therapy
● Procedures related to drug administration for nutrition and fluid control
− Dose adjustment of intravenous hyperalimentation during continuous drip infusion
− Treatment of dehydration symptoms by transfusion
● Procedures related to infection-related drug administration
− Rescue dose of drug to a patient with infection symptoms
● Procedures related to drug administration for blood sugar control
− Adjustment of insulin dose
● Procedures related to postoperative pain management
− Administration and dose adjustment of sedative by means of peridural catheter
● Procedures related to drug administration according to circulatory dynamics
− Adjustment of catecholamine dosage of during continuous drip infusion
− Adjustment of sodium, potassium or chloride dosages during continuous drip infusion
− Adjustment of blood pressure medicine dosage during continuous drip infusion
− Adjustment of the carbohydrate preparation or electrolyte dosages during continuous drip infusion
− Adjustment of diuretic drug dosage during continuous drip infusion
● Procedures related to drug administration for a psychiatric or nervous symptoms
− Rescue dose of an anticonvulsant drug
− Rescue dose of an antipsychotic drug
− Rescue dose of an anti-anxiety drug
● Procedures related to drug administration for skin injury
− Localized injection and dose adjustment of steroid at the time of leakage of a cancer drug or other agent from blood vessel

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＜総説＞

本邦におけるチーム医療を推進する仕組み・制度

種田憲一郎

国立保健医療科学院国際協力研究部

抄録

保健・医療・福祉の現場では多くの職種の協働が不可欠である. 現場に浸透している「チーム医療」という言葉は, 1970年代からよく使われ, 旧国立病院管理研究所においても1975年には「McMaster大学における医師と看護婦のチーム医療」と題して研究会が開催されている. 公衆衛生分野においても, 旧国立公衆衛生院において1961年から合同臨地訓練と呼ばれる多職種による実習が開始されていた. 2010年には厚生労働省に「チーム医療推進会議」が設置され, 診療報酬上も栄養サポートチーム加算, 呼吸ケアチーム加算などが開始されている. 2024年 4 月からは医師の働き方改革として, 時間外労働の上限規制が施行されるためタスク・シフト/シェアなど, 多職種での協働が更に推進されることが不可欠であり, 制度の見直し等が進められている. 一方で多くの医療事故がチームとしての課題であることから, 患者安全を担保するためにもチーム・トレーニングなども実施することで, より安全に効果的・効率的な治療・ケアを提供する真のチーム医療が期待される.

キーワード：チーム医療, チームワーク, 医療政策, 医療, 働き方改革