Global Bridges Japan Full Proposal English Translation
Request ID: 35604231 (LOI#30)
Organization: Japan Society of Cancer Nursing
Project Title: Building capacity of Japan Oncology Nurses to be Tobacco Control Champions

A. Cover Page

・Title
禁煙教育に係わる日本のオンコロジーナースの能力向上のための取り組み

・Grant ID number
Project ID：35604231

・Main collaborators
The Japanese Society of Cancer Nursing（JSCN）
日本がん看護学会
The International Society of Nurses in Cancer Care（ISNCC）
国際がん看護学会
The Asian Oncology Nursing Society（AONS）
アジアがん看護学会

C. Main Section of the Proposal

1. Overall Goal & Objectives

The overall objective of this project is to cultivate clinical nurses involved in cancer treatment in Japan capable of providing evidence-based cessation counseling for tobacco dependence.

Furthermore, to increase the nurses desire to provide smoking awareness education to their patients, this project will form an international partnership with nurses associations and other countries to further develop the program.

The focus of this project will be to strengthen the network between the International Society of Nurses in Cancer Care (ISNCC) and the Asian Oncology Nursing Society (AONS) and improve tobacco control through the very best in nursing. The ISNCC works to improve cancer prevention and cancer care, while AONS works to improve strength and cancer prevention and care in Asia. Nursing professionals in Japan must understand their global mission as health professionals engaged in smoking awareness education and their role as an international bridge. Furthermore, they must strategically develop their skills to help improve tobacco control. Past successful examples exist, particularly in the pioneering development and cultivation of nursing skills for tobacco control done by the Portugues[sic] Oncology Nursing Association (AEOP).

Developing Japan's clinical nurses into professionals capable of demonstrating leadership on

tobacco control can be expected to cultivate nurses would actively contribute in many ways, from pressing forward on tobacco control in general to influencing domestic policies.

Nurses are the largest health care professional group to point out that international tobacco control is essential. This is evidenced in the Framework Convention on Tobacco Control (FCTC) [1)] adopted by the World Health Organization (WHO) in May 2003 and ratified by more than forty countries including Japan, and which came into effect in February 2005. In the same way, nurses are also the largest health care professional group in Japan. The Japanese Society of Cancer Nursing in particular is the largest organization of cancer nurses in Japan, and has currently 5000 members. The ability for the health care professionals of this organization to disseminate smoke free policy can be expected to have a great effect in Japan.

Objective

The objective is build an evidence-based smoking awareness education program for tobacco dependence focusing on the clinical nurses in Japan involved in cancer treatment. This program will be founded on the educational needs of the 1.08 million clinical nurses in Japan including the 5000 members of the JSCN. In order to achieve this objective, the ISNCC and AONS will share with the JSCN the actual process of past initiatives used to educate leader nurses involved in cessation counseling in the realm of tobacco dependence treatment. Two additional elements are needed to achieve this objective while receiving technical support and in order to cultivate leader nurses capable of smoking awareness education to their patients. The first is the planning and offering of an instructors program (ToT [TN: Training of Trainers] Workshop) that will cultivate leader nurses, and to cultivate leader nurses. The second is to build a web tutorial (e-Learning[sic]) and to develop and implement training materials that will be used to disperse knowledge regarding cessation counseling. More specific objectives based on these elements are as follows.

(1) At least 50% of the nurses completing the ToT workshop will train other nurses at their facilities regarding cessation counseling

(2) At three months post training intervention at least 40% of the nurses will report "always/regularly" assessing patient's smoking status

(3) At three months post training intervention at least 30% of the nurses will report advising their patients regarding cessation "always/usually"

2. Current Assessment of need in target area

In this age we can protect current and future citizens from the harmful effects the health brought about by smoking. Even Japan itself has taken measures to comply with the Framework Convention on Tobacco Control proposed by the WHO (WHO FCTC). More specifically, the establishment of

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"Healthy Japan 21" (version 2) [1], and the " Health Promotion Law" [1] have promoted the dissemination of better knowledge regarding smoking and other lifestyle diseases, regulations on smoking in public spaces, and of smoking cessation treatment. The Basic Cancer Control Act established in 2006 also specifically promoted measure for preventing cancer [1]. The effects of smoking, of other lifestyle diseases, and ones living environment on one's health are more widely known. Smoking awareness in particular is also now recognized as a pressing issue that requires immediate action in terms of promoting cancer prevention. Thus, various initiatives on cessation counseling and tobacco dependence treatment are being adopted not only nationally and locally, but also at the point of medical care.

Despite this, Japan is far behind in educating citizens about smoking and adopting measures for against secondhand smoke compared to other developed countries. A subjective assessment of Japan's tobacco control policies on the basis of the Tabacco [sic] Control Scale which is a part of Europe's tobacco control regulations would have Japan as last in a list of 30 European countries; Japan has been identified as underdeveloped [2] in terms of its level as a smoke free society. Tobacco is still also cheap [2]. Given these factors the prevalence of tobacco use in Japan according to the National Health and Nutrition Report from the Ministry of Health, Labor and Welfare is still high compared to other countries at 19.6%; and when broken down by gender the prevalence is 32.2% among men and 8.5% among women [1].

It has been estimated that 130,000 people or more die each year of smoking related diseases in Japan. Scientific evidence suggests that smoking leads to various kinds of diseases such as cancer, respiratory diseases, and cardiovascular diseases and is a factor in ill health. Within this context, cancer is said to be Japan's national affliction, as it affects one in every two people. In terms of the proportion of deaths by cause, malignant growth is the number one cause of death at 28.8%. The proportion of deaths due to cancer is extremely high [1]. Forty percent of men and five percent of women are reported to die from cancer due to smoking [4]. Given these numbers, policies toward being smoke free is the number one issue in Japan.

However, it is also been reported that tobacco dependence from smoking, in other words the chemical dependence that becomes the so-called chronic nicotine poisoning becomes toxic in 68.6% of the cases [5]. Nicotine is a euphoria inducing substance. In large quantities the substance acts as a stimulant (such as cocaine or amphetamines) [6] and is highly toxic. The term nicotine dependence merely points to the psychological illness, i.e., the chemical dependence; a person is likely to restart use eventually even after a period of abstinence [7]. It has been acknowledged that a person has temporarily stopped or is in remission [8]. Additionally, trying to stop smoking for at least one week even after receiving a test treatment is quite difficult. The Ministry of Health, Labor and Welfare reports that 15% of cases of this type fail; the state of chemical dependence, that is, the state of chronic nicotine poisoning brings on an incredible amount of stress is trying to change one smoking habits [9].

A low level of nicotine in the blood brings on a variety of complicated symptoms: it increases the desire to smoke, reduces concentration, and increases nervousness, irritability, fatigue and drowsiness [7)]. Consequently this makes cessation quite complicated. A study of the smoking status of patients nine months after cessation treatment revealed that 22.4% of the patients failed to remain smoke free and began smoking again [10)]. When the patient attempted to quit smoking independently, only 5% were able to continue being smoke-free after a year [11)].

One of the reasons for this is that smoking creates a conditioned stimulus. That is, the smoking behavior continues given a certain condition in one's daily life; the desire to smoke comes about with presence of that condition [12)]. Activities like finishing a meal, drinking coffee, or the end of work may all become stimulus for wanting to smoke. The desire to smoke brought about by the conditioned stimulus is often treated as having no relation to trying to remove the dependence on nicotine [12)], thus making it difficult to continue smoke free. Thus, it is important in cessation counseling to adequately understand nicotine dependence and provide the appropriate replacement therapies; however the effects of cessation counseling increases when recognized behavioral therapies such as incentive interviews, behavioral pattern changes, rewarding behavior are also used.

Given the above it tends to be difficult for one smoker to become smoke free. Therefore, an assistant capable of providing support during cessation is essential for bringing about the behavioral changes needed for tobacco dependence treatment to be successful. Prior research has reported that the family, physicians, and nurses provide support for cessation [14-16)]. In particular, a nurse responsible for a patient's day to day would be able to fill an important educational role in the patients life, given that this nurse could conceivably understand the patient's perceptions and background, evaluate the type of intervention suited to the patient's lifestyle, and encourage the patient to change their behavior. It can be expected based on previous reports [17)] that cessation support involving cooperation of the physician and the nurse provides more efficient counseling and better cessation rates compared to prior cessation counseling that relied solely on the physician.

In contrast, nurses, which are the largest group of health care professionals in Europe and the USA, play an important role in tobacco regulations by advancing cessation counseling education among nurses [18)]. In particular, Dr. Stella Bialous and Dr. Linda Sarna are leaders in web-based education for nurses in tobacco control counseling. The programs have spread to China, Europe, and North America [19-22)].

The results of an online survey of nurses in the association conducted by the JSCN in 2016 (The Priority of Cancer Nursing Research in Japan) discovered several important concerns for cancer nursing research [23)]; namely, decision making problems; ethics problems; and the development of nursing intervention or care methodologies such as managing symptoms, and self-care management. The concerns identified also match the types of concerns and topics presented at the organizations academic meetings where only a few topics are related to cancer prevention or tobacco regulation. It

was reported that in addition to the 37% of nurses that have absolutely no training experience concerning cessation support [24)], only 59.3% of the remaining nurses verify the smoking status of their patients [25)]. The lack of awareness of smoking among nurses is one factor there is no progress in providing cessation counseling [26)]. It was also reported that the cessation rate increases proportionally to the number of staff involved in cessation counseling [27)]. An important concern is cultivating nurses capable or providing evidence-based cessation counseling and nurses counseling cancer patients; however, the most important issue is to establish an environment where nurses always have an interest in smoking awareness education and to increase the number of nurses and the quality of care involved in treating tobacco dependence.

3. Target Audience

The JSCN has built an international network cooperating with the ISNCC and AONS. Until now there has been no educational intervention targeting members of the JSCN, which is comprised of over 5,000 nurses. In other words, the 5,000 members of the JSCN have the potential of becoming leaders. This project will target nurses needing education focused on improving nursing skills to create leader nurses who take on the role of educators in smoking awareness education. Accordingly, the following types of nurses are the focus of this project.

A key element of this project is to have at least two clinical nurses belonging to regional facilities (e.g., at least cancer centers) specialized providing cancer treatment in Japan. Ideally these nurses are members of the JSCN, work at a regional cancer center, and have at least three years of clinical experience as cancer nurses. These are nurses that can be responsible for educational activities designed to disseminate evidence-based smoking awareness education to other clinical nurses involved in treatment at their respective facilities.

The goal of the project is to increase the nurse's interest in tobacco dependence treatment as well as have nurses recognize its importance within cessation counseling, and to improve the nurse's ability train others in evidence-based cessation counseling. Therefore, it is important to cultivate leader nurses in cessation counseling wherefrom training can spread throughout and beyond where these leader nurses work; it is also important to offer web-based tutorials in a style that makes it easy for the target audience to study the bare minimum of smoking awareness education from home.

While there are over 5,000 members in the JSCN, it is estimated that around 50 clinical nurses involved in cancer treatment will attend the ToT workshop that will be the basis for assessing this project. The workshop will target training nurses capable of instructing 10 or more potential cessation counseling instructors at their own facility; the goal is to expand the training to 500 clinical nurses. Two hundred and fifty nurses will be invited to take part in the e-Learning portion of the course.

The number of deaths from smoking in Japan is estimated to double roughly every twenty years; in 10 years, roughly an additional 5,000 people may die from smoking. If, for instance, 750 clinical

nurses are able to provide successful cessation counseling to even just four people per year, this will result in preventing roughly 60% of deaths over 10 years and may even break the doubling trend.

The final beneficiaries of this project will be Japanese patients who continue to smoke despite having the desire to quit. In the short and medium term the project will benefit clinical nurses by empowering this group with interest and action in providing smoking awareness education instruction in the context of tobacco control.

4. Project Design and Methods

Design

Descriptive single group before-after study design. Three hundred members of the JSCN (i.e., clinical nurses in Japan) will attend to strategic training programs. This project is based on a previously successful program, and the current iteration will account for the background situation in Japan. The two strategic programs will be a (1) ToT Workshop, and (2) Web tutorial (e-Learning). The details of the two strategic programs are as follows.

Strategy I. ToT Workshop

Selected Targets and Considerations

The educational materials (EM) used in a previous model case for the project are in English; these materials will be revised based on the Japanese cultural background and translated into Japanese. Members of the Lung Cancer Nurses SIG with practical research experience in instructional design for clinical nurse education will be responsible for reviewing the EM. Three to five clinical nurses will then evaluate the appropriateness of the materials and the educational materials will be refined accordingly. Participants will be recruited for the workshop with the support of the JSCN (50 persons for the ToT Workshop, and 250 persons for e-Learning). Workshop participants will be considered leader nurses post ToT. As such, these leader nurses will be expected to plan and disseminate simple and evidence-based smoking awareness education training for clinical nurse colleagues; participants will be notified of these expectations on recruitment. Participants will receive all educational materials when conducting smoking awareness education training. JSCN leadership as well as from Dr. Stella Bialous, Dr. Linda Sarna, and Dr. Winnie So Kwok-wei will provide support and advice. Presentation and other training materials used in the ToT workshop will be distributed the day of the workshop on USB drives, and leader nurses will be allowed to use the ToT workshop materials (planning, operation, education materials etc) when conducting training.

Intervention

The nurses will provide oral and written informed consent (IC) to participate in the project when attending the ToT Workshop. Individual demographic data, clinical experience, and smoking status will be self-reported via a questionnaire. The content of this questionnaire will be identical to the

questionnaire given to colleagues attending in training at the trainer's facility. The ToT workshop will be at least approximately eight hours, and the workshop content will be presented via PowerPoint slides (Table 1). Workshop participants will incorporate discussions and practical role plays in order to investigate effective training content for a variety of smokers. Once the TLT workshop is complete, participants will be asked to create and present an action plan. This will provide an incentive to distill what was learned at the workshop into an actual training program for use at the trainer's facility. At the end of the course participants will be furnished a certificate identifying the participant as a leader nurse.

Table 1: Example ToT Workshop Program Schedule

9:00-9:30	Registration
9:30-10:00	Opening Ceremony Introductions (Project Aims, Instructors, etc)
10:00-10:25	The Epidemiology of Tobacco Dependence its Effect on Smoking and the Need for Tobacco Control
10:25-10:45	Theories behind Tobacco Dependence: Mental, Behavioral, and Physical Dependence
10:45-11:00	Break
11:00-11:20	The Relationship between Smoking and Tumors
11:20-11:45	Diagnosing Tobacco Dependence and the Concerns for Specific Groups
11:45-12:30	Lunch
12:30-13:00	Therapeutic Intervention for Tobacco Dependence (using the SCRIPT Model Case and 5A Methodology) and the Role of the Nurse
13:00-13:45	Discussion: Therapeutic Intervention for Tobacco Dependence and the Role of the Nurse
13:45-15:15	Smoker Model Cases and Role plays (providing incentives to bring about certain behaviors)
15:15-15:25	Break
15:25-16:15	Q&A and Action Planning
16:15-16:30	Taking the Next Step Where You Work
16:30-16:45	Presentation and sharing of action plans
16:45-17:00	Wrap up (includes briefing on collecting data at a 3-month follow-up) and handing out completion certificates

Distribution of workshop materials

Clinical nurses who attend and complete the workshop will be given a USB drive which includes simple one-hour presentation slides and materials, resources, and tools that can be used when training

nurses at the trainer's facility.

Collecting data on the brief smoking awareness education workshop

Trainers will collect data on attendees to the simple smoking education workshops held at the trainer's facility. The questionnaire used for collecting data will be sent after three months to the participant facility to be used in the simple workshop; therefore, this serves to acquire the informed consent of participants in the simple workshop at the trainers facility regarding data collection. ToT workshop participants trained as trainers will be contacted at the participating facility to follow-up regarding the workshop status and to assess the current status of the trainer. The project team will analyze this information.

Results and Considerations

A baseline and the data collected three months post workshop will be summarized, and analyzed by the project team to determine the effects and to identify any concerns.

Strategy II. e-Learning Program

The e-learning program will be divided into two courses: The Role of the Nurse in Cessation Counseling, and Smoking Cessation in Cancer Treatment. A test will be conducted prior to the program to confirm participants' knowledge, skills, and attitudes pertaining to smoking and cessation counseling. A post program test will also be conducted three months later to determine the level of learning achievement; the test will include evaluations of the e-learning program from users of the program. Participants will be recruited and registered until 250 persons have completed the program keeping in mind the relationship to the leader nurses who participate in the ToT workshop. The aim is for participants in the course to be able to effectively produce results in clinical practice.

The program will be built similarly to the techniques used to build the web tutorial created by the research team at UCSF and UCLA. The lecture content will be prepared based on the specifics of the cessation program jointly implemented by the AEOP and the ISNSS[sic: ISNCC] taking into account the background in Japan, similarly to the development of the ToT Workshop. Each course in the e-learning program will be constructed as 40-minute sections where participants will learn about: smoking in Japan and current anti-smoking measures; the effects of smoking on health and the health hazards; the effects of cessation on the public and on cancer patients; the role of nurses in anti-smoking measures; and cessation counseling protocol.

Note that the JSCN leadership, Dr. Bialous, Dr. Sarna, and Dr. SO Kwok-wei will provide support and consultation when necessary to increase the quality of the program contents.

5. Evaluation Design

The same tools will be used to evaluate its Strategy I and Strategy II. The plan is to create a 32-question survey based on past successful examples, however the content will be revised to suit the

situation in Japan. These questions are meant to ask the nurses receiving smoking awareness education intervention about the knowledge and attitude towards tobacco control. There will also be questions pertaining to nurse demographics (age, gender, etc.), professional experience (basic nursing education institution, years in clinical practice, and current department), as well as smoking status. The survey will ask for frequency (always, usually, sometimes, rarely, no) with a separate set of questions for smokers based on 5A (e.g., Ask, Advise, Assess, Assist, and Arrange). The survey will also assess whether nurses recommend a smoke free environment after the patient leaves the hospital, and whether the nurse uses any materials to conduct smoking awareness education training. Questions will also be directed to perceptions of the nurse as a role model in smoking awareness education training; questions pertaining to this will be asked using the four-level Likert scale. There will also be questions directed to how many patients the nurses has assessed the smoking status in the past, and in how many cases patients have been able to successfully quit due to cessation counseling. This will be used to evaluate changes in practice toward tobacco control before and after intervention.

Strategy I: ToT Workshop

Based on ISNCC past successful model cases, nurses who have participated in the ToT Workshop will be sent training related materials and survey forms (questionnaire and IC forms) for conducting training at the participating facility. The leader nurses will conduct assessments before and after the simple smoking awareness education training offered for nurses (a baseline and three months after training) at the participating facility to demonstrate the effects of the ToT workshop. This cohort study will assess changes in the frequency at which nurses intervene to provide smoking awareness education to their patients (self-reported). The JSCN project headquarters will send the necessary amount of materials to the leader nurse clinical nurse leaders [sic] three months after training. The nurses will return the materials anonymously via post to protect personal information. The administrative group will be responsible for managing data and statistical analysis. Analysis will be conducted using SPSS® (IBM.NY) Ver24.0. Descriptive statistical analysis will be conducted on the demographic and professional expertise data of the participating nurses. The primary outcome will be nurses self-reporting a change in frequency of intervening for patients with smoking awareness education; a key outcome of intervention will be an interest in intervention practice evidenced by nurses self-reporting "always /regularly" providing intervention. A nonparametric test will be used to evaluate the frequency of intervention before and three months after training. To take into account the influence of smoking or non-smoking by participants in the workshop, a Chi squared test will be used to analyze the outcome of smokers and non-smokers; the statistical significance will be established at $P < 0.05$.

Strategy II: e-Learning Program

The level of attainment within the e-learning program will be evaluated by comparing data before and after the program. The two hundred and fifty participants will take a free program test and a post-program test (three months after the program). The learning status, such as the number of times a course is accessed will also be used as a metric. The evaluation will also be based on attendees' assessment of the e-Learning program.

Dissemination of the Project and the Project Results

The results obtained in the project will be presented to domestic and international academic societies. The project specifics and results will also be submitted to peer-reviewed academic journals. The information about the project will also be disseminated by providing an overview of the program on the JSCN website and social media.

6. Detailed Workplan and Deliverables Schedule (October 2017 – June 2019)

Plan (October 2017 through June 2019)	First Year 2017 to 2018				Second Year 2018 to 2019			
Period (Months)	October to December	January to March	April to June	July to September	October to December	January to March	April to June	July to September
Create working group and determine regular meeting schedule								
Build the partnership with ISNCC								
Build the partnership with AONS								
Study reports from past projects, carefully investigate training materials, and acquire translations								
Submit to Ethical Review Committee for approval								
Select workshop instructors and staff								
Strategy I: ToT Workshop								
Select participating facility and acquire informed consent								
IRB: Provide support for and submission to IRB procedures at Japanese participating facility								
Program Schedule								
Create advertising poster								
Create slides								
Create teaching materials								
Create post-workshop evaluation sheet								
Create post-completion proof of participation								

Task
Recruitment
Host workshop
Self-report level of completion of action plan (3 months post workshop)
Provide guidance on revising action plan
Self-report level of completion of action plan (6 months post workshop)
Review and assessment of Strategy
Outcomes: Strategy I Leader nurses describe behavioral changes and assess results of workshop
Strategy II: e-Learning Program
Prepare web tutorials
Assess and select web environment [TN: platform]
Create web tutorial content
Create web tutorial based test
Evaluate methods of recruitment and public relations
Create post-completion proof of participation
Create content to be published on websites; upload content
Finalize web version of teaching materials
Conduct preliminary survey and review assessment of the web tutorial
Recruit participants
Begin offering web tutorials
Give test three months after completion
Data Analysis
Overall assessment of the program and conclusions
Outcomes: Strategy II Assess results of web tutorial from before-after study of tutorial, and number of times viewed
Coordinate with ISNCC and AONS websites
Create cessation support Banner
Cooperate with other nursing associations
Reporting
Monthly reports from relevant leaders
Organize meeting to discuss project results and future issues

Dissemination: presentations at domestic and international academic societies regarding results of the project	
Prepared to submit academic papers	
Take initiatives to analyze overall project results, create and publish reports, and disseminate results	