"approaching if not overshadowing voice."[27(p191)] If Negroponte's prediction is accurate, cyberspace may rob or strengthen human voice. This cyberspace research method proposes a foundation for strengthening the voice of research participants and the voice of long-distance collaborators, seeking to bridge distance and culture in pursuit of human understanding. It is proposed as a starting place for critique and further development, bringing long-distance research collaboration into this new millennium.

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creased, and the patient was discharged 10 days later having no difficulty eating or drinking.

Although there is a safe, inexpensive, and efficacious vaccine, tetanus remains a medical problem even in industrialized nations, where overall incidence appears to be 0.16 per million. About 40 cases occur in the United States a year.[4] The highest annual incidence is seen in persons aged 60 and older and in intravenous-drug users. The overall case-fatality ratio is 18%.[4] Recent investigations demonstrate that only about 30% of the population aged 70 and older have protective tetanus antibody titers, with a sex-dependent difference of 16% in favor for men.[5] After a thorough active immunization with tetanus toxoid, antibody levels and therefore protection decline continuously over time.[6] A booster is therefore recommended every 10 years or after 5 years when a tetanus prone tissue injury has happened.[7] Unfortunately, patients tend to be underinformed about the necessity of booster injections, and physicians do not always remember to apply it.

Because vaccination with tetanus toxoid has been found to induce an excellent immune response in the elderly,[8,9] we emphasize the importance of simple preventive procedures such as checking and updating vaccination status routinely in all patients by the medical practitioner, with particular attention to elderly women. Moreover, as already proposed in a previous article,[10] the excellent therapeutic results seen in our three cases favor aggressive treatment in very elderly patients.

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FROM NASCHER TO NOW—75 YEARS OF U.S. GERIATRICS

To the Editor: In my paper "From Nascher to Now—Seventy-Five Years of United States Geriatrics,"[1] based on the first Nascher-Manning Lecture of the American Geriatrics Society, I chose to focus on the contributions of Nascher that remain so fundamental to our field. Many of those poignant and current ideas are contained in his 1914 textbook, *Geriatrics: The Diseases of Old Age and Their Treatment*.[2] Reading his textbook was a humbling experience and a wonderful one, too.

Historian J. Freeman, reviewing in 1961[3] many of Nascher's writings, discovered the 1909 paper containing the original phrase in which Nascher created the word "geriatrics." I was pleased[1] to quote that original definition from Freeman's article: "'Geriatrics' from *geras*, old age, and *iatrikos*, relating to the physician, is a term I would suggest as an addition to our vocabulary to cover the same field in old age that is covered by the term pediatrics in childhood...to emphasize the necessity of considering senility and its diseases apart from maturity, and to assign it a separate place in medicine."[3] For the original source of this definition, I cited a 1909 paper[4] using Freeman's references.[3] As Cohen points out in his recent letter,[5] it was an incorrect citation, although I may point out, the exact quotation. I thank Cohen for going to the primary 1909 article[6] in which the word "geriatrics" originated and providing the correct citation.

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HIS-STORY AS A DIMENSION OF THE PRESENT

To the Editor: Reminiscence is considered a normative aspect of the aging process. The traditional definition of reminiscence is the act of remembering or recollecting past experiences. This case suggests a broader perspective of reminiscence, which has implications for how we interact with elders.

One autumn afternoon, an 82-year-old man's interview was introduced into the conversation of three healthcare professionals, including the psychologist who was telling

the story of the interview she had conducted on the previous day. The interview was conducted to find unpleasant or unsatisfactory conditions for nursing home residents. The patient had been asked to identify the most unwelcome rule in the nursing home where he had lived for many years. He answered, "We don't have a mixed bath." The interviewer laughed, and the old man was grinning. Finishing the story, the psychologist said, "He was so cute." There was more laughter as the story was told to the healthcare professionals, and there was a sense of connection with each other and the patient as the story came alive, enabling us to value this unique elder.

When thinking about this story later in the day, we considered it in relation to recently analyzed data. The data were a set of interviews with elderly Japanese who had experienced a stroke who told us about their health experience.[1] The conceptual term "past defining the present" was withdrawn from their narration such as "When in the military I was able to keep walking even with an open wound," and "I had a teacher during childhood who took me places and awarded me prizes." Both of these were expressions the elders introduced into the dialogue when asked about their health experience. We believe that expressions of the remembered past create meaning for the knowing-feeling-willing present moment.[2] In 1963, Butler wrote that elderly psychiatric patients engaged spontaneously in reminiscing and what he termed the "life review."[3] Reminiscence or expression of the past is a normative process rather than being a symptom of infantile degeneration in the elderly. In the case presented here, the patient remembered the past taking a vacation with his colleagues, visiting a countryside hot spring, and enjoying an outside mixed bath. He feels fresh air and a sense of freedom and he brings that remembrance to his present health experience when a timely cue is introduced. Implicit in his restricted life in a nursing home is his story of past life experiences, including the mixed bath. A mixed bath symbolizes his willingness to be alive in the present and simultaneously his sense of incompleteness living his current nursing home life. The boundary of the present and the past becomes obscure evoked by a timely cue.

Eighty-one year old Tolstoy wrote, "Consciousness is immovable. Due to this alone, there is a movement which we call "time." If time moves on, then there must be something that stands still, the consciousness of my "I" stands still."[4] The man in the story is neither lecherous nor is he joking, but he is living in a present, reflective of his past history...his-story. We believe it is important to interpret the meaning of his-story in the present moment and distinguish it from reminiscence. Seeing his-story enables interaction without judgment so that what he is telling the healthcare professional contributes to understanding of him as the unique individual he is.

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Letters to the Editor

Young-old and old-old motivation in cooperative fall-prevention programmes

SIR—The quantum and tempo of ageing in Japanese society are dramatic, particularly in rural, depopulated areas [1]. The fiscal pressure of long-term care costs and the shortage of health care resources have been so severe in these areas that they have stimulated the consolidation of small municipalities, which carry responsibility for public health and welfare programmes into larger units. This has resulted in effective use of public care services and extensive endorsement of disability-postponing (*kaigo yobou*, in Japanese) programmes [2]. Most prominent for the health maintenance of the elderly population are fall-prevention programmes, which are highly individualised to each municipality.

In 2003, we initiated a unique programme in Onishi Town, Gumma Prefecture, in which community-dwelling elderly people themselves coordinate and share responsibilities of running such a programme based on mutual cooperation. The elderly population of Onishi has grown, with 28.1% of the population (total population of 7,300 as of October 2003) aged 65 years and above. Fall-prevention seminars were publicised in advertisements in the town office newspaper, through public relations activities at senior centres, and at meetings of elderly people's clubs. In this programme, younger old people led the activities and played a dual role as participant and in transporting older people to the programme by car. Since recruitment in the initial stage was successful, the programme was subsequently expanded to other municipalities in the region.

Two hundred and twenty-nine participants (mean age 72.8 +/−, range 60–91 years) participated in the fall-prevention seminars. All applications were voluntary, and the organisers distributed no invitations. First-time participants were interviewed regarding fall-prevention measures they currently used, and the measures were classified according to the Guideline for the Prevention of Falls in Older Persons [3]. The majority of the subjects (58.5%) responded that they had taken or were taking actions to avoid falling. The most common actions taken by the participants included concentrating more on not falling (92 persons; 68.7%), exercises (28 persons; 20.8%), and modifications of the living environment (8 persons; 5.9%). Multiple regression analysis indicates that older age (odds ratio 0.34, 95% CI 0.15–0.94 in the 60s compared with the 80s) and shorter functional reach (odds ratio 2.53, 95% CI 1.12–5.68 in the lowest quartile compared with the highest quartile) are important predictors of taking fall-prevention measures. Gender, hospital visits, frequency of going out, instrumental activities of daily living, history of falling, falls efficacy scale, and knee extensor muscle strength did not reach statistical significance.

The old-old and those experiencing more functional aging seem to have participated in the programmes with the concrete goal of extending their current daily practice of fall prevention. However, additional factors may also motivate participants. Japanese elderly in both urban and rural settings increasingly experience isolation from family and community. Even those living in two- or three-generation families have a strong desire to avoid becoming a burden on their relatives and strive to maintain independence and meaningful social roles [4]. Thus, the cooperation of young-old and old-old in this programme offers an additional incentive for participation.

Health care professionals in cooperation with municipal offices are primarily responsible for introducing these programmes. However, in fiscally strapped rural areas where older people comprise over one-quarter of the population, elderly citizens are not simply recipients of community programmes, but must also share in the responsibility for health promotion and community reform. Previous reports of fall-prevention programmes have focused on multifaceted menus for individual clients, but do not consider interpersonal relationships developed through the programme. The success of the Onishi fall-prevention programme challenges communities to examine ways of creating meaningful relationships across generations and of fostering mutual help among older people.

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doi:10.1093/ageing/afh224

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Clin Geriatr Med 20 (2004) 179–200

CLINICS IN
GERIATRIC
MEDICINE

The use of complementary and alternative medical therapies among older persons around the world

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Defining complementary and alternative medicine (CAM) in a nonpejorative manner is the first step in understanding what these therapies (unknown for most Western practitioners) have to offer, why our patients are attracted to and find effectiveness in them, and how conventional practitioners can deal with their increasing use by our patients. The most often used definition in the medical literature in the United States is "those practices neither taught widely in United States medical schools nor generally available in United States hospitals" [1]. Other descriptive terms found include "unconventional" and "traditional." Although there continues to be a shift in attitude toward acceptance of these therapies as complementary rather than alterative [2], to be as inclusive as possible, and at the risk of being a bit judgmental, we have decided to use the combined term "complementary and alternative medicine" in this article.

Because most readers of this article are from Western countries, where conventional medicine predominates, it should be noted that some of the therapies discussed in this article under the title CAM would be considered mainstream in other countries. For example in China, traditional Chinese medicine (TCM) was the only medicine practiced for thousands of years. When Western medicine entered the continent of Asia, it was considered unconventional [3]. In many

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Asian countries, dividing lines between CAM and conventional medicine are not clear [4].

To make some distinction, it is necessary to define conventional medicine. Conventional therapies are those taught at allopathic medical schools. Allopathy is a system of medical practices that traditionally has fighting diseases as its goal. It is organ- and disease-based. Although many in the area of CAM criticize this type of medicine as separating the body from the mind, which distracts from holistic concepts of health [5], editors of the very first edition of *Harrison's Principles of Internal Medicine* would disagree. They detail the expectations of a physician as not only an obligation to gain technical skills and scientific knowledge but to gain an understanding of the patient, "for the patient is no mere collection of symptoms, signs, disordered functions, damaged organs, and disturbed emotions. He is human, fearful, and hopeful" [6]. Although it would be convenient to draw dividing lines between CAM, which emphasizes prevention and wellness, and conventional medicine, which focuses on treatment of illness, both are trying to do to some extent what the other claims to be its strength. Several brave CAM therapies have undergone the standard double-blind randomized controlled trials; some have proven successful, some have not [7–11]. For conventional medicine, the increase in chronic diseases and near-epidemic rates of obesity and diabetes have generated the subspecialty of preventive medicine and an interest in this area, even by practitioners in geriatrics [12–14].

In the end, it is a matter of awareness, balance, and good judgment. In the introduction of *Alternative Medicine: The Definitive Guide*, a 1200-page encyclopedic testimony to and description of over 40 CAM therapies for over 200 health conditions, Burton Goldberg first praises conventional medicine as "superb in dealing with acute medical conditions and traumatic injury, and in providing emergency treatment." He goes on to make his second exaggerated statement: that "there is no question that alternative medicine works better for everything else, especially chronic degenerative diseases" [5]. Although his claim that CAM is more cost-effective in the long term is made without evidence (to be fair, much of conventional medical practice struggles to prove it is cost-effective) [15–17], his reasoning for this, that CAM emphasizes prevention and goes after causes rather than symptoms, is gathering interest from the conventional medical field, and has already taken hold in much of our patient population. Thus, those who practice conventional medicine need to understand why an increasing percentage of patients with chronic problems or diseases are using CAM therapies and believe in their effectiveness [18,19], while trust in conventional medical therapies is decreasing [20–22]. Part of the allure that CAM has, and that conventional medicine is at risk of losing, is a philosophy that is 7000 years old. As early as 5000 BC, physician-sages from China and India recognized that human beings were composed of body, mind, and spirit, and that one's health depends on the balance of these three. An imbalance, in the most

chronic obstructive pulmonary disease (COPD), and diabetes who are depressed have worse outcomes than nondepressed patients with the same chronic diseases [23–25]?

Why learn about complimentary and alternative medicine around the world?

Older persons in the United States are not going to wait for CAM therapies to be proven effective or ineffective. In this country, this process is in its infancy. In 1991, Congress, not the medical community, was the driving force that resulted in the Office of Alternative Medicine (OAM) at the National Institutes of Health (NIH) in 1992. Finally, in 1998, the NIH realized that this type of medicine is not only alternative, but supplemental or complementary, thus creating the National Center for Complementary and Alternative Medicine (NCCAM) [26–28]. Thus, instead of a review of CAM therapies that have failed or passed the evidence based medicine (EBM) litmus test, this article is intended to increase our knowledge and awareness of different CAM therapies from around the world. However true (or nearly true) it may be when Western physicians respond to certain patients who ask about a certain therapy that, "there is no evidence that this works," we should feel obligated to understand this field better, based on the following facts from good Western-style studies

- The use of CAM is increasing [11,29].
- The majority of patients who use CAM therapies believe that they are effective [1,18,19,30].
- The majority of patients do not tell their physicians that they use CAM therapies [1,18,19,30].
- The majority of physicians do not ask about these therapies [1,18,19,30].
- Over half of Americans surveyed believe their health plans should cover alternative therapies [31].
- Approximately 80% of medical students and 70% of family physicians want training in CAM [31].

Add those observations to the following changes and one can see it is necessary to understand CAM around the world

- The world is becoming a smaller place.
- Access to worldwide information has never been easier.
- Economies, and eventually health care systems, will continue to become more similar instead of more diverse. Given this, disease patterns and aging patterns will start to look similar.
- As infectious causes of mortality around the world decline, chronic illnesses

There are additional reasons for studying CAM around the world. The most obvious are the knowledge of new potential treatments that are unknown to the West and the need to identify the biochemical composition of the active agents in some herbs. Examples include the herb trichosanthin, which has undergone trials by the FDA [33], and an herb called qinghaosu used for treating fever in China for over 2000 years. In 1971, it was found to have antimalarial activity, the active ingredient being artemesin [34].

Another benefit to this endeavor is to learn how other countries with high rates of CAM use deal with what seems in the West to be the conflict between conventional medicine and CAM. As East and West continue to meet, it is important to know how different countries integrate, separate, or mediate between the two.

China

China is perhaps the best example in the world of an environment in which CAM and conventional therapies are colleagues. According to Hesketh and Zhu, "China is the only country in the world where Western medicine and traditional medicine work alongside each other at every level of the health care system" [3]. In the Western medicine hospitals approximately 40% of the medicines are traditional, and in the traditional hospitals, about 40% of the medicines prescribed are Western. A survey done in two village health clinics in Zhejiang Province showed that practitioners always prescribed a combination of Western and Chinese medicine [3].

Although a higher proportion of TCM is practiced in rural areas compared with urban areas, there is little chance that Western medicine will overtake TCM. TCM has its own medical schools, hospitals, and research institutes. In 95% of hospitals practicing Western medicine, there are departments of TCM, most with inpatient beds. When patients arrive at the outpatient department, they can choose TCM or Western treatment. In Jiangsu, an eastern province that is considered wealthier than most others, one fourth of the 10 million outpatients opted for TCM. Between 1988 and 1992, pharmaceutical sales of Chinese medicine increased by 52%, and sales of Western medicine increased by 51%. There is also governmental support of TCM. According to a World Bank report in the early 1990s, 20% of the planned increase in hospital beds was to be for TCM [3].

The most common forms of TCM include herbal medicines, acupuncture, acupressure massage, and moxibustion. The article on alternative medicines is an excellent overview of what the West has learned and adopted from the East. Although one Chinese pharmacopoeia includes over 5000 entries [35], traditional doctors in China usually choose from around 500 common classical prescriptions, and typically combine 5 to 15 herbs, which are boiled up together to make a drink [3]. This gives a whole new meaning to polypharmacy. Although

awe the Westerner. Hundreds of glass jars are filled with what looks like collections from a nearby botanical garden. A pharmacist, after looking at the prescription from the doctor, plucks out, spoons out, or cuts various parts of plants from these containers, places them in paper on a scale in a deli-like fashion (but quicker), wraps them, labels them, and passes them onto the patient.

Most Westerners are familiar with the concept of acupuncture, especially concerning its use with analgesia. Before understanding acupuncture, however, one must be familiar with the concepts of "qi" (pronounced "chee") and "yin-yang." Qi has been translated to mean "living force," "essence of life," or "vital energy." The proper flow of qi along energy channels is crucial for health. The healthy individual's qi flows smoothly through meridians and organs. When this flow is deficient, blocked, excessive, or does not flow smoothly, illness occurs. Qi has two essential qualities: yin and yang [5].

The terms yin and yang stem from a basic Chinese concept describing the interdependence and relationship of opposites. They are often talked about in terms related to weather. Yin is associated with cold, darkness, tranquility, and passiveness. Yang is associated with heat, light, arousal, and stimulation. Also, yin refers to the tissue of the organ, whereas yang refers to its activity. In yin deficiency, the organ does not have enough raw materials to function. In yang deficiency, the organ does not react adequately. An example of how a balance of these interdependent opposites work for physical and emotional health is dampness. Although some damp signs point to imbalance, (weeping eczema, edema, heaviness in digestion, indecision, being helpful to others at the expense of oneself), some dampness is essential for health (smooth skin, normal secretions and excretions, generosity, patience) [5,36].

Because imbalances in qi and yin-yang need to be harmonized, acupuncture can be used to shift a person's climate. "It can moisten, dry, cool, warm, augment, deplete, redirect, reorganize, unblock, stabilize, raise, or lower a person's weather patterns" [36]. Fine needles are inserted into specific points on the body. Classic theory recognizes about 365 points located along 14 main channels (called meridians). Some points treat an entire yin-yang emblematic configuration, and others affect local symptoms. Between 5 and 15 needles are used in a typical treatment.

In 1997, an NIH Consensus Development Panel reviewed the evidence from randomized controlled trials on acupuncture. Here are some of its conclusions:

> There is clear evidence that needle acupuncture is efficacious for adult postoperative and chemotherapy nausea and vomiting. Much of the research focuses on various pain problems. There is evidence of efficacy for postoperative dental pain. There are reasonable studies (although sometimes only single studies) showing relief of pain with acupuncture on diverse pain conditions such as tennis elbow and fibromyalgia. This suggests that acupuncture may have a more general effect on pain. However, there are also studies that do not find efficacy for acupuncture in pain.

> Although many other conditions have received some attention in the literature and, in fact, the research suggests some potential areas for the use of acupuncture, the quality or quantity of the research evidence is not sufficient to provide firm evidence of efficacy at this time" [37].

A review of Cochrane Database publications supports some of these conclusions. Two examples as they pertain to older persons include the lack of evidence for acupuncture for low-back pain and smoking cessation. Based on eight trials, acupuncture is not more effective than placebo or sham acupuncture for the treatment of chronic low-back pain [38]. Based on 22 studies, acupuncture was not superior to sham acupuncture in smoking cessation [39].

Acupressure is the technique of using hand pressure on acupuncture points, for which the data on effectiveness are similar to those on acupuncture [40–43]. Moxibustion is the use of heat stimulation by burning the herb *Artemisia vulgaris* near the acupuncture point [44,45].

Japan

There is a growing concern about health in industrialized countries. As the standard of living has improved through economic development, people's interest has shifted from stable daily affairs to getting the most out of a healthy life. In the past, this has been known as "healthism." It appeared in the 1950s in the United States, and in the 1970s in Japan. In Japan, which has touted the longest life expectancy in the world, three factors have contributed to the increased concern about health among lay people: (1) food, clothing and housing supply have been stabilized since the end of World War II; (2) Deaths of newborn babies or deaths due to tuberculosis were reduced, and most people now survive until old age; (3) people put more value on wellness and youthfulness [46]. A book written by T. Watanabe called *Garlic Works to Keep Health* (*Ninniku Kenkou Hou*) sold over a million copies in 1973. A television show, *Gogo wa Marumar Omoikkiritereb*i, hosted by a famous master named Monta Minois, constantly gets high audience ratings. Program staff gather data from around the country, and every weekday, the program introduces one food for good health or one way of keeping healthy. Oftentimes, items seen on the program sell out several days after the show. The most striking example of this was cocoa, which contains polyphenol and plant fiber. After being featured on the show, cocoa products disappeared from stores and supermarkets for a couple of weeks.

Despite the rapidity with which health has improved in Japan, and the apparent enthusiastic attention Japanese place on health, there is evidence indicating that a sense of values on health among Japanese has not changed over the past 40 years [47]. The Institute of Statistical Mathematics in Japan has performed a nationwide survey on the national traits every 5 years since 1953. One question asks, "What is most valuable for you?". Multiple choice answers include health,

between 1958 (when 21% chose health as their highest priority) to 1998 (when 22% made that choice) [48].

What explains the discrepancy between enthusiastic food shopping and stable values about health? One possible explanation is that people's concern about health information is growing, but it may not link to health as an irreplaceable value itself. People spend time gathering information, and spend a small amount of money for health. Health information on CAM from the mass media, (TV, newspapers, journals, Web sites) is increasing. It comes into fashion, stays in fashion, and then goes out of fashion.

Japanese physicians have argued against the definition of CAM that was used in the study reported by Astin [4,30]. Eastern and Western therapies coexist in Japan, based on a variety of needs. The histories of traditional medicine used for 2000 years and Western medicine imported 200 years ago are quite different, and the range of CAM included in the study may limit interpretation of results. As Astin replied to his critics, however, "it is more important to find social and cultural differences and to apply the results to qualified understanding of CAM under the clearly defined term" [49]. There has been only one nationwide survey on CAM use in Japan [50]. The survey was conducted by telephone, and the sample size of respondents was 1000. Seventy-six percent of respondents used CAM, which was greater than use of conventional Western medicine (66%). The highest percentage of CAM use was found to be in nutritional drinks and dietary vitamin and mineral supplements (43.1%), followed by health-related appliances (21.5%), herbs/kampo (Chinese herbal medicine) (17.2%), and massage/acupressure (14.8%). In the studies of the Western population, the main reason for use of CAM has been reported to be health promotion or relief of symptoms [51]. The most common reason given in the choices and selected in the Japanese study was "the condition was not serious enough to warrant orthodox Western medicine" (60.4%), and the second most common was "expecting health promotion or disease prevention" (49.3%). The first reason might be more directly expressed as "expecting relief of pain or discomfort," which would relate to the Japanese style of thinking: people prefer indirect questions rather than direct ones, and answer indirectly or less insistently. The most frequent answer older Japanese gave for use of CAM in our study, "expecting health promotion or disease prevention" was classified as "general health" [18]. These two phrasings share a similar meaning. It is also true, and worth noting, that physicians' attitudes to CAM and medical school education affect people's reasoning and preferences for CAM [52–56].

At the end of 1998, the first meetings of The Japanese Society for Complementary and Alternative Medicine (JCAM) and Japanese Association for Alternative, Complementary, and Traditional Medicine (JACT) were held in succession. Both organizations were founded to scientifically investigate the efficacy of complementary, alternative, and traditional therapies used in Japan. In addition, the latter organization focuses on integration of Eastern (Tibetan

annual meetings, regional meetings, and expert committees to study dietary supplements, economic aspects of CAM, and folk remedies. The definition of folk remedies by the committee is: traditional remedies originally from Japanese folklore, excluding therapies requiring a national license, such as acupuncture, moxibustion, acupressure massage (shiatsu), and jyudo therapy (jyudo-seifuku). There is no licensing for chiropractic and osteopathic practice. This is the first time traditional Japanese remedies have systematically been evaluated.

The Japan Supplement Association (JSP) is a nonprofit organization, and provides information on dietary supplements. It publishes a dietary supplement yearbook and releases individual brand information on its Web site. If a company wishes its brand to be covered in the Web site, it must submit data on safety, efficacy, and sales.

There is little information on CAM use among older Japanese people. We performed a study using a questionnaire to interview geriatric outpatients in Saint Louis, Missouri and Tokyo, Japan [18]. The total number of participants was 593 (white Americans, n = 180; African Americans, n = 106; and Japanese, n = 307). Use of ≥ 1 type of CAM was greatest among older Japanese (74.3%), followed by use among white Americans (61.1%), and African Americans (47.2%). These percentages excluded therapies such as vitamins/minerals and self-prayer, but do include lifestyle diet, which was the most commonly used type of CAM therapy in all three groups. Lifestyle diet was differentiated in this study from commerial diet which was defined as a diet plan or therapy for which a person pays money. Use of CAM in these studies, even among Americans, was quite high in contrast with a rate of 42% rate in a national sample of American adults [29]. It is likely, based on this study, that outpatients with chronic conditions are more likely to seek CAM therapies. High use rates of lifestyle diet and herbal therapy (the second most commonly used type) among Japanese older people might be due to effects of mass media, particularly television programs [57]. Efficacy of these CAMs is often vague and has little scientific evidence, which led to establishment of a new foundation: Japan Health Food and Nutrition Food Association, supported by the Japanese Ministry of Health, Labor, and Welfare.

The most common CAM therapies used among the Japanese after lifestyle diet and herbal therapy were massage, acupressure, and acupuncture. The white and African American groups were more frequent users of relaxation techniques and spiritual healing, compared with the Japanese group. This result was expected, based on the cultural differences in these two countries related to the history of CAM, but there were remarkable similarities in higher perceived effectiveness of CAM (white Americans = 85%, African Americans = 92%, and Japanese = 84%) and lower reported use of CAM to physicians (white Americans = 48%, African Americans = 42%, and Japanese = 46%). This suggests that health-care professionals working in the field of mainstream medicine in both countries should be aware of and consider their patients' broad spectrum of therapy choices. In addition, the lack of association observed with use of CAM and

patients. This is in contrast to the correlation between higher education levels and higher income, and increased use of CAM in general population studies [18,51].

Traditional CAM therapies frequently used in Japan that were either not asked about in the study, or had low use rates in the United States and are worthy of mention, include hot-spring therapy, acupuncture, moxibustion, and kampo.

People in Germany, Hungary, and Finland use spas or hot springs for relaxation and pain relief, but the Japanese have the reputation of having the most delightful hot springs in the world, and the most visits to hot springs. It is common to talk about a previous trip to a hot spring, or a planned trip over the next holidays. The favorite tourist destination for Japanese is Mount Fuji, and the second favorite is the famous hot spring, Beppu [58].

Functions of hot springs are classified by ingredients in the water. Sodium salt, bicarbonate salt, and carbon dioxide hot springs are common, and those with low sodium salt would be desirable for older people [59]. The effects of hot springs are attributed to three factors: chemical ingredients in the water, temperature stimulation, and relaxation in a natural atmosphere. Recently, lower-temperature hot water (around 40°C = 104°F) has been recommended to prevent dizziness or accidents during bathing.

Acupuncture is now gathering great attention in the United States, and articles on acupuncture are published frequently in major United States newspapers. This began with the experience of an American journalist, James Reston of the New York Times. He accompanied Henry Kissinger to China in 1971, and had an operation (appendectomy) with acupuncture instead of Western anesthetics. When he returned home, Reston wrote an article about his experience in the Times [60].

Acupuncturists are required to pass a national license examination in Japan, and usually have their own clinics. The cost of acupuncture is covered by national health insurance., although acupuncture therapy is thought to be generally effective in Japan for reducing various kinds of bone and joint pain, there is still little scientific evidence for this. One recent randomized controlled trial done in Japan on the effectiveness of acupuncture indicated more usefulness of acupuncture than transcutaneous electrical nerve stimulation (TENS) for relief of low-back pain; however, only 20 subjects were in the study, and it was done over a 2-week period [61]. Some adverse effects (pneumothorax, spinal cord injury, acute hepatitis, and others) are reported, and unsupervised self-treatment is discouraged [62].

One of the differences between moxibustion in China and Japan is that in Japan, it is getting popular as a self-treatment among young people. In Japan, the traditional procedure is to cauterize with moxa (dried seaweed) on therapeutic points (called tsubo), which can leave a scar from the burn. Recent procedures use small pellets of moxa that does not burn the skin. The reported effects include "refreshed feeling, relief from fatigued legs, and relief of stiff neck" [63].

Whereas acupuncture and moxibustion originated in Northern China, Chinese

kampo has been routinely prescribed in hospitals and clinics [65]. As in China, kampo medicine in Japan is based on the interdependence and balance of opposites, the yin and yang, instead of dysfunction of a specific tissue. Kampo is considered independent of other CAM therapies. Multiple prescriptions are usually given (a caution for triggering adverse effects) and each kampo prescription contains many constituents, which is consistent with the basic idea of the yin and yang theory. Reported adverse effects and interactions with Western medicines need to be further studied, however, as education on CAM is not widespread in Japanese medical schools [4,65].

India

The state of CAM and conventional medicine in India is best characterized as a parallel system struggling with the dilemma of integration. The majority of people in India reside in rural areas [66]. Conventional medical doctors, on the other hand, are found mainly in cities and towns. Thus traditional practitioners have a major role in providing health care in rural areas [67]. They are not isolated from conventional medicine, however. They participate in public health programs, including infant immunization, and diagnosing and treating malaria and tuberculosis. Narendra Shafi, a member of a panel set up to look at this issue, goes as far as to say, "Vast sections of the population have no access to modern allopathic doctors" [68].

Although India has over 485,000 registered practitioners of ayurveda, siddha, or unani (the main types of CAM in India), and there are over 200 colleges that offer government accredited medical degrees in these disciplines, the federal government spends only about 2% of its annual health budget on traditional medicine (through support of education, clinics, hospitals, and research) [67].

The current dilemmas are threefold. First, new regulations were introduced in July of 2000 to improve standardization of Indian herbal medicines. (a large component of the ayurveda, siddha, and unani practices) [69]. The government at that time had established 10 new drug testing laboratories for Indian systems of medicine, and was intending to upgrade existing laboratories to provide higher-quality evidence of the safety and quality of herbal medicines to licensing authorities [69]. This is a large undertaking for a country with such a large rural population.

The second dilemma concerns cross-system practice. One panel including both conventional as well as traditional practitioners conceded that traditional practitioners prescribe certain essential drugs to patients that may have given rise to instances of drug misuse; however, the panel agreed that an absolute ban on cross-system practice would "cripple public health services" in India [68]. In 1996, the Indian Supreme Court ruled that a doctor qualified in one system of medicine who practices another system could be charged with quackery and

An intriguing third dilemma was a proposal by the Indian Health Ministry to introduce courses in traditional medicine in colleges teaching conventional medicine. This prompted Indian Medical Association officials to say that, although they are not against traditional medicine, exposing students to different systems of medicine would cause confusion, and even promote quackery [67].

As the West awaits the outcome of India's struggle with the dilemmas of two systems—parallel in the past, attempting to become integrated in the future—what can the West learn from one of the oldest practices of medicine in the world?

The term "ayurveda" combines two Sanskrit words: ayur, meaning life; and veda, meaning knowledge. Ayurvedic medicine the type of Indian medicine best known to Westerners. It uses herbal therapies with a holistic approach to the patient, placing equal emphasis on body, mind, and spirit. It attempts to maintain and restore harmony, which is based on who the individual is, on what type of person he is when he is most healthy. Treatments are not necessarily targeted at specific disease conditions; they are aimed to help achieve the balance between body, mind, and spirit.

Although the following is a short and oversimplified explanation, in ayurvedic medicine each individual has a metabolic body type. There are three metabolic types, called doshas, based on elements of nature (ether/space, air, fire, water and earth) similar to the elements in TCM. The three doshas are: vata, pitta, and kapha. Although all three doshas are present in varying degrees in each part of the body, and are present in varying degrees in each person, each person is thought to have a predominant dosha. For example, people who are vata-predominant might be thin, have prominent features, eat and sleep at all hours, but be enthusiastic and intuitive. At other times they may be moody or anxious. Pitta-predominant body types may be of medium build, live by the clock, be warm and loving, but may have short tempers and be prone to get ulcers or heartburn. Kapha metabolic types are relaxed; they sleep heavily, are slow to anger, are prone to procrastination, and may have problems with their weight. The image that most people have of an ayurvedic physician is one who calmly sits with a patient, while keenly examining his pulse. Reportedly, they can distinguish 12 radial pulses (six on each side; three superficial and three deep). In India, it is their power of observation (and of more than the pulse) rather than equipment for which they are known. In addition to treatment with herbs, diet (with attention to taste, temperature, and consistency), exercise (the most notable type being yoga), and meditation are all forms of treatment used in ayurvedic medicine [5,70].

Europe

The use of CAM in European countries is best described as in-between that seen in Eastern Asia and that seen in the United States, but the hallmark of

France has the world's largest market for homeopathy, most of which is dispensed by prescription. Over a third of the population are users. The United Kingdom has among the lowest per capita spending for homeopathy, followed by Greece and Portugal, but the market in these three countries is growing [71].

Germany could be considered the Western home of herbal medicine users. Herbal medicines, also called phytopharmaceuticals, accounted for 10% of the total pharmaceutical market in 1989 [72]. This area of pharmaceuticals is regulated, and many of the studies in this area that meet EBM criteria come from Germany [73–76].

Reflexology is based on the belief that there are reflex areas in the hands and feet that correspond to every part of the body, including organs and glands, that can be affected by stimulating the appropriate reflex areas [77,78]. This is particularly popular in Denmark, and other forms of massage are popular in Finland [71,79].

Information on use of CAM in what used to be considered Eastern Europe is less well-known. Before the fall of communism, CAM in general was not incorporated into state systems, but it was not prohibited. Herbal and folk traditions probably persisted in most areas, and liberalization of health-care systems has led to differing views as to whether there is an increased interest in CAM or a negative attitude toward CAM [71,80–84].

A better piece of knowledge than the types and effectiveness of CAM throughout Europe is the ongoing lesson of how Europe deals with the regulatory part of the world of CAM. Although regulatory patterns are quite varied throughout Europe, in general, regulation (and some degree of protection) of practitioners, and regulation of various herbals, homeopathic preparations, and even vitamins is occurring. For example, in January 1994, one of the European Council (EC) directives on homeopathic medical products was issued. It was intended to ensure a single European market for these products [85]. Another EC directive on proprietary medicinal products has put some restrictions on product licenses for herbal medicines [86].

South Africa

The Westerner who journeys beyond modern medicine in South Africa will at first experience intrigue and doubt, but if open minded and patient, will learn valuable lessons for areas where modern medicine struggles. The most common form of CAM in South Africa is that of the traditional healer. Approximately 200,000 traditional healers practice in South Africa, compared with 25,000 doctors of modern medicine, and 80% of the black population uses the services of traditional healers [87].

From the view of the Westerner, these healers might be characterized as "witch doctors." For the people they serve, these healers are respected individ-

are quite sound. Disease is a supernatural phenomenon governed by a hierarchy of vital powers. Powers may include spiritual entities, ancestral spirits, living persons, even animals and plants. Disharmony in these vital powers can cause illness [87].

The strategies for diagnosing the causes of illnesses include probing into the psychological, spiritual, and social makeup of the person, as an individual, and as part of the community. This delving into the individual may be as simple as talking with the person, or as extensive as having the person move his residence nearby [88].

The process of diagnosing, if done with compassion, can be therapeutic. One account of an African traditional healer emphasizes this. When an older man came to the traditional healer complaining of leg pain, the healer first talked to him about his life, "what life had given him and what he had given to life." Then the healer, as many do, "threw the bones" for the patient, to look for answers in the patterns the bones made on the ground. After trying many times, the bones gave no answers, so the healer asked the man to come back another day. On follow-up, the bones still gave no answer, so the healer asked the man to move away from his family into the compound in which the healer lived. The man stayed at the compound, during which time the healer and patient had several interactions, including washing with herbs, ceremonial meetings, even beating of drums. After 2 weeks, in the words of the healer, "To heal is to give life. My work is to give people life so they can be happy. I know the man was cured when he became happy, and then I became happy, too" [88]. Although the diagnosis was never exactly known, three principles common to most traditional healers were practiced in this case. First, patients must be completely satisfied that they and their symptoms are taken seriously, and that they are given adequate time with the healer. Second, the healer evaluates and understands the patient as a whole, body and mind. Third, the healer sees the patient as an integral part of a family and a community, and as such, the healer is an integral part of the community [87]. As Dr. Albert Schweitzer said when Norman Cousins showed his skepticism about the effectiveness of witch doctors who were working closely with him, "the witch doctor succeeds for the same reason all the rest of us succeed. Each patient carries his own doctor inside him. They come to us not knowing the truth. We are at our best when we give the doctor who resides within each patient a chance to go to work" [89].

The medical interview is the most commonly performed procedure in clinical medicine, and it should be given importance as such. Effective physician-patient communication is related to patient satisfaction and compliance, both of which are very important in the care of older patients. It is also associated with physician satisfaction and certain medical outcomes [90].

It is not that those who practice conventional medicine do not know this, but that the environment of technologically advanced diagnostic tests is thought of first, either out of patient expectations or fear on the part of the practitioner.

was a young woman in her twenties with abdominal pain, the other was a man in his early sixties with chest pain. The 3-hour, night-consuming modern medicine work-up ensued, which turned out to be negative. The tired resident went back to the patients intending to fill them with good news. Instead of gratitude, both patients began to cry, at which time the resident had no choice but to sit down and listen. The young woman was worried that her husband was about to hurt their new infant of 5 months, because of the stress of being a new parent. The older man was looking for help from "someone" because he had not been successful with family, friends, or the police in his struggles to rescue his daughter from a house where she was living and getting involved in drugs. His decision to seek help at the emergency department was made easier by his symptoms of chest pain.

A certain amount of skepticism brings balance and caution to the practice of CAM, and guidelines toward its integration with Western medicine or its parallel use. In South Africa, many recipes used to prepare herbal remedies are still kept secret. Enemas and emetics that can be quite caustic are two of the more commonly used forms of treatment by traditional healers. There are challenges that face South Africa in this area. Should an attempt be made at establishing pharmacopoeia or regulating remedies used? The nature of what traditional healers do leaves open the possibilities for charlatans to practice and take advantage of a large segment of the population. The former editor of the South African Medical Journal advocates self-regulation of traditional healers, and the creation of a system for formal registration [87]. Another recommendation is to incorporate traditional healers into the primary health-care service. Because there is a large need for primary care in rural areas, traditional healers serving as village health workers would satisfy a great part of this. The questions that arise, however, are what range of illnesses would the traditional healer be allowed to treat, and would they be willing to accept the secondary role of health workers [91]? For older South Africans, there are pros, cons, and unknowns regarding traditional healers. As the older population grows, the status of traditional healers in the community is more likely to remain positive, because traditional healers tend to be older. The question is whether or not the status of traditional healers will change, up or down, with the status of older persons.

The United States

The United States is known for its individualism and independence. Most Americans also interpret "the pursuit of happiness" to mean trying and discovering new ways to improve life. And many even go so far as to live by the words, "never give up," as depicted by the popular image of a frog, while being swallowed head first by a large bird, strangling the very bird that is eating it. For

There are three studies, done in California, New York City, and St. Louis, that give a glimpse into patterns of use of CAM among Americans over the age of 65 [18,19,92]. The California study was a mailed survey of older persons regarding a Medicare risk policy (which offered coverage for acupuncture and chiropractic care), with a response rate of 51% (n = 728); and the other two studies were cross-sectional, convenience sample interviews with older persons in outpatient geriatric clinics. The New York study included 212 patients and the American part of the St. Louis study included 286 patients. All three studies used similar definitions and inquired about similar CAM therapies, based on previous studies done in the general population [1].

Prevalence of CAM use ranged from 41% [18] to 64% [92], with prevalence of use differing among older white Americans (61%) compared with older African Americans (47%) [18,19]. Two of the studies found underreporting by patients to be common (46%–58%) [18,19] and the other study found that only 35% of users had documentation of CAM use in their charts [92]. Despite this, perceived effectiveness among patients was 80% in one study [18] and 89% in another [19]. Interestingly, the latter study also asked about perceived effectiveness of "medical" therapy, which was significantly lower (82%) compared with CAM therapy (89%) ($P< .001$) [19].

Perhaps the most helpful information to come from these studies for practitioners are the data concerning most commonly used CAM therapies. Although use rates were generally higher in the California study compared with the St. Louis study, the most commonly used CAM therapies (excluding lifestyle diet, prayer, and vitamins) were herbs (24% and 10%, respectively), chiropractic (20% and 6%), massage (15% and 7%) and acupuncture (14% and 2%) [18,19]. The New York study focused on use of CAM supplements that might have anticoagulant properties (vitamin E, gingko, garlic, and ginger), and found that 46% of patients reported use of these, half of whom were also taking a prescribed anticoagulant [92]. Although it could be argued that these four supplements have differing degrees of anticoagulant properties or no anticoagulant properties, the message for practitioners is that older patients are taking supplements that may have potential for interactions with prescribed medications, and that patients are not telling their practitioners about the supplement use.

The sociodemographic data on predictors of CAM use, although fairly consistent in the general population [1,30] are not consistent enough in studies of older persons to help practitioners know who to screen. Although one study showed users were more likely younger and more educated [18], another study failed to show any correlation with use of CAM and sociodemographic variables [19]. On the other hand, asking what patients use CAM for may help practitioners become more aware of which of their patients are more likely to use CAM along with their conventional medical therapies. Chronic illnesses such as osteoarthritis and depression predicts use of CAM. Patients with cancer are among the top users and seekers of CAM [93–96]. Patterns of underreporting and high rates of per-

Recommendations

As previously noted, the world is becoming a smaller place, and the use of CAM is increasing in most parts of this shrinking world. Based on this article, the following are some practical recommendations for practitioners of conventional medicine who care for older persons, because this journal is intended for them.

Patients need to be asked about use of complimentary and alternative medicine

Inquiry into use of any type of CAM needs to be a part of the patient interview. Use of CAM is widespread and predictors of use are unreliable; thus asking all older patients, of all backgrounds, in all countries, about CAM use needs to be done. At the same time, patients need to tell their providers, whether the providers are CAM providers or providers of conventional medicine, about the use of therapies that have any reasonable potential risks. The key qualifier here is potential: and whether or not patients, or providers for that matter, have an obligation to understand which CAM therapies have potential, not just reported, risk, is debatable, but important for improved care. This is based on the fact that care for older persons is often complex. Two of the cornerstones of geriatric care are comprehensiveness and communication.

Comprehensive geriatric assessment has been studied, and if done appropriately, it can improve care [97–99]. To this, an inventory of CAM should be added, and the most likely efficient way to do this is through a survey of the most common CAM therapies filled out by the patient or caregivers of the patient.

Communication among disciplines about all aspects of the patient in the care of older persons is the backbone of successful systems, for the hospital (Acute Care of the Elderly), for innovative care of frail older persons (Program for All Inclusive Care of the Elderly), and for home care programs [100–102]. Included in this, of course, is communication to and from the patient and the health-care team.

An additional reason to open up lines of communication about use of CAM is to improve patient satisfaction. For some unscientific reasons, perceived effectiveness of CAM by patients is very high. Awareness of patients' use of CAM and understanding why they do so is not acknowledgment of effectiveness. Obtaining trust from patients can improve the health–care relationship, as indicated by the patient who tells others, "My doctor understands me" [103,104]. How many systems now track patient satisfaction [105–108]?

We need to improve our knowledge of complimentary and alternative medicine therapies

The need to improve out knowledge of CAM therapies can no longer be avoided. Although conventional practitioners are being overwhelmed by the

held computer systems are the standard [109,110]. *The Physician's Desk Reference for Herbal Medicine* [111] and other books are available.

The primary goals of the health-care system need to be established

To answer the looming question of whether to integrate or separate CAM and conventional medicine, we need to establish the primary goals of the health care system. For older persons, most would agree that adding life to years is more desirable than adding years to life. How do older persons define "life," then? Function is most easily identified by our patients as independence. For geriatric practitioners, it is considered one of the most important outcomes in studies of older persons, especially in studies in which, from a health-care point of view, older patients would identify independence as a primary goal. Geriatric practitioners would agree, but would use the term "good function" instead. Will integration or separation of the two fields promote this goal? Keeping CAM and conventional medicine separate in our health-care system will not lead to greater independence for older persons. Integration of the two systems, although likely to be more burdensome in the short term because of educational and financial aspects, will benefit older persons in the long run, where benefit is due. Integration does not mean acknowledgment of effectiveness. It means taking advantage of any benefits that one or the other, or the combination of both, have to offer. Why is patient satisfaction and perceived effectiveness of CAM so high? Conventional medicine proponents need to study this and learn from it. Similarly, CAM proponents need to go beyond patient satisfaction. For the benefit of older persons, their caregivers, and society, they need to show effectiveness, particularly concerning function and independence.

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Japan Journal of Nursing Science (2004) 1, 87–97

ORIGINAL ARTICLE

Current status of discharge planning activities and systems: National survey of discharge planning in Japan

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Abstract

Aim: We investigated the current situation of discharge planning in Japan and the variables related to the implementation of discharge planning.

Methods: A questionnaire was mailed to 3268 general hospitals in 2001; 1359 hospitals were used as the subjects of analysis.

Results: The majority of the hospitals experienced problems in terms of patients' discharge (1313 or 96.6%). More than 90% of the hospitals described discharge planning activities. The most common professions involving discharge planning were ward nursing staff and physicians, and only 29.4% hospitals reported that a discharge planning department was established in their hospitals. More hospitals with these departments implemented almost all activities of discharge planning compared with hospitals without such departments. Implementation of discharge planning was also related to hospital size, affiliated institutions, implementation of home visits by medical staff, and nurse/patient ratios.

Conclusion: This survey showed a high implementation rate of discharge planning activities but that departments for discharge planning have not been widely adopted. It is recommended that such departments should be established or that staff should be allocated to carry out discharge planning in order to assure the continuity of quality care for patients as they move among care settings.

Key words: care management, discharge planning, inter-organizational collaboration, Japanese hospitals, multidisciplinary approach.

INTRODUCTION

Japan's universal and egalitarian health-care system has helped to keep its population healthy at an exceptionally low cost (Ikegami & Campbell, 1999). However, soaring health-care costs caused by an ageing society and advanced medical care is a serious problem in Japan now, which is a similar situation in other developed countries. Inpatient care consumes approximately half of the general medical care expenses (Japan Ministry of Health, Labour and Welfare, 2003c) and its costs should be decreased. Discharge planning has been gaining social attention as a way to ensure the continuity of high-quality patient care and to save on health-care costs by preventing extensive and/or unnecessary re-hospitalization.

In Japan, the average length of a hospital stay has been much longer than what it is in other developed countries (Japan Ministry of Health and Welfare, 1999). Economic incentives to decrease the length of stay are now incorporated into medical payment schedules. In April 2003, the average length of stay at general hospitals was 21.0 days; a reduction from previous years (Japan Ministry of Health, Labour and Welfare, 2003a).

Concurrently, the number of patients who need care after being discharged from hospital is increasing as

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Received 10 March 2004; accepted 26 July 2004.

Japan's society ages and family ability to provide care is decreasing because of the increasing number of nuclear families living apart from extended families and women being more involved in social activities. Moreover, new health-care and welfare systems in Japan, such as the Long-term Care Insurance initiated in 2000, make the procedures for getting services more complex (Murashima, Yokoyama, Nagata & Asahara, 2003). As a result, it has become more difficult to coordinate home health services or to search for other hospitals or institutions that provide subacute care for persons discharged from the initial hospitalization period.

Pressure for shorter hospital stays in the USA has been created by the Prospective Payment System for Medicare, in effect since 1982. However, there are problems caused by patients being discharged too early; this can include a deterioration in their medical condition and re-admission. These problems are called 'premature discharge' or 'sicker and quicker' discharge phenomena (Kosecoff, Kahn, Rogers, Reinisch, Sherwood, Rubenstein *et al.*, 1990; Jaarsma, Halfens & Huijer-Abu Saad, 1996). Hospitals are required to take responsibility for the quality of their service, and so discharge planning has increasingly become a very important issue (Volland, 1988). Many researchers have pointed out the effectiveness of discharge planning, citing outcomes such as shorter hospitalization, greater satisfaction of clients, more use of home-care services and fewer re-admissions (Naylor, 1990; Evans & Hendricks, 1993; Haddock, 1994; Bull, Hanson & Gross, 2000; Sumi, Murashima, Toba & Ouchi, 2001).

The necessity for discharge planning is obviously increasing in Japan too. Actually, discharge planning activities are included in the items of implementation for Hospital Accreditation by the Japan Council for Quality Health Care, the only organization nationally authorized to accredit hospitals (Hirose, Imanaka, Ishizaki & Evans, 2003). In addition, 'forming the guidance plan for discharge' has been included in requirements of the acute care hospital fee since 2002. However, staff allocation and systems of discharge planning may not be adequate in many Japanese hospitals because 'indirect care' is given less priority, and having a system for discharge planning is not included in the conditions of health insurance coverage.

What kind of system is most effective for discharge planning in hospitals? Dash, Zahle, O'Donell and Vince-Whitman (1996) classified nursing involvement in discharge planning into seven models that included 'social workers assisting nurses on specific clinical units' or 'interdisciplinary model coordinated by the hospital's medical staff.' In published studies, collaboration of nurses and social workers (Rosswurm & Lanham, 1998), a multidisciplinary team (Rich, Bechkan, Wittenberg, Leven, Freedland & Carney, 1995), or geriatric nurse specialists (Naylor, Brooten, Campbell, Jacobsen, Mezey, Pauly *et al.*, 1999) were associated with good discharge planning practices.

Currently, creating effective systems for discharge planning in Japanese hospitals is a challenge. Murashima, Nagata, Toba, Ouchi and Sagawa (2001) reported the function of the multidisciplinary team for discharge planning at one of the university hospitals. However, because of factors such as culture, economic incentives and practice patterns, solutions elsewhere may not be appropriate (because the culture of hospitals is different, there is no evidence that multidisciplinary approach for discharge planning is adequate for all hospitals). The problem is significant given the volume of patient discharges from the hospitals. According to national data, approximately 13 million patients were discharged from general hospitals in 2001 (Japan Ministry of Health, Labour and Welfare, 2003b) and 88% of these patients were discharged home (Japan Ministry of Health, Labour and Welfare, 2001). However, although a survey of discharge planning practice in metropolitan Tokyo in 1999 was published (Meguro, Sakurai & Koike, 2000), the organization of discharge planning services in the entire country has not been yet described. Information about numbers of hospitals implementing discharge planning and how they are doing it may be useful to encourage discharge planning and improve the quality of patient care.

Consequently, the purpose of this research was to describe the current situation of discharge planning in Japan and to investigate the relationship between discharge planning practices and characteristics and systems of hospitals. For this report, we have defined 'discharge planning' as a process to identify and confirm arrangements with other hospitals, institutions or home-care agencies that can meet needs of patients and their family after discharge from the initial treating hospital, and to provide the support necessary for discharge, such as information, guidance and coordination of services to patients, families and service providers.

METHODS

Subjects and procedure

Based on the 'Hospital Catalogue 2001–02' (Society for Health Policy of Ministry of Health and Welfare, 2000),

all general hospitals with 100 or more general beds (e.g. this excluded beds for psychiatric and infectious disease patients) were identified to comprise the population for a survey. These totalled 3268.

In November 2001, a questionnaire was mailed to the director of the nursing service department from all targeted hospitals (3268 hospitals). The director of nursing and the staff, if any, in charge of discharge planning in the hospital were to answer the questionnaire. In a cover letter, we stated clearly that the information about each hospital would not be identified publicly and that confidentiality would be maintained at all times.

Variables

Characteristics of hospitals

The questionnaire included items about hospital characteristics such as: establishing body, number of beds (as the variable for hospital size), number of nurses per patient, types of affiliated organizations or institutions, state of home care implementation (e.g. rental of medical equipment and home visits by medical staff), average length of hospitalization for patients using general beds.

Discharge needs of patients

We asked whether the hospital sometimes had difficulty arranging patients discharges, and, if problems existed, we asked what the problems were. And, with respect to the data for the previous year, we asked the facilities or agencies the hospital staff contacted at the time of patients' discharge for this information.

System for discharge planning

We asked about the presence of 'a department for discharge planning'. The definition of 'department for discharge planning' was a 'department in the hospital to which the staff in charge of discharge planning belong.' In addition, regarding discharge planning for all patients (including those with special needs), we asked about the professions of the staff who were involved with the patient discharge.

Implementation of discharge planning

We wanted to know what discharge planning activities were being implemented and by whom. We also asked whether the discharge planning activities were part of routine care. The discharge planning activities, identified in an earlier study (Ouchi & Murashima, 2002), were as follows:

- Counseling and coordination for the family.
- Explanation about the system of social welfare and Long-term Care Insurance.
- Referral to other hospitals and institutions.
- Referral to care managers for Long-term Care Insurance.
- Referral to primary care physicians.
- Referral to visiting nurses.
- Use and coordination of home helpers.
- Introduction and coordination of welfare equipment.
- Ordering and coordination of medical equipment and hygiene products.

We also asked about the profession of the person who was in charge of the implementation of each activity.

Statistical analysis

The initial analysis was a univariate analysis to describe frequencies. The relationship between implementation of discharge planning and other variables was investigated in two phases. The bi-variate phase involved an initial selection of all variables associated with implementation of discharge planning. Next, a multicollinearity check was conducted to confirm which variables had significant correlation with the implementation of discharge planning. For the multivariate phase, a forward stepwise multiple logistic regression was used to clarify the factors related to discharge planning implementation. Analysis was conducted by using SPSS version 11.5 (Chicago, IL, USA).

RESULTS

Response rate and sample

From a population of 3268 hospitals, 1568 (48.0%) responded. However, 162 hospitals had fewer than 100 general beds, and thus did not meet the inclusion criteria for the present study. In addition, the remaining 1406 hospitals included institutions for the disabled and other long-term care facilities that were not suitable for the purpose of the present study. To ensure a uniform sample, we established an additional criterion, 'average length of hospital stay was less than 90 days'; a criterion to compute the standard charge (this has been decided by the national medical insurance and it differs in terms of the type of hospital, patient/nurse ratio and average length of hospitalization) for acute care hospitals. Ultimately, 1359 hospitals were selected for the data analysis.

In comparison to all hospitals ($n = 3268$), respondents were more likely to be established by the public sector (53.2 *vs* 43.2%) and to have more beds (312.3 *vs* 260.6).