

The Nutritional Health Beliefs of Nurses in Japan, Thailand, China and Australia

Sue Turale, Teresa Elizabeth Stone*, Warunee Fongkaew

Abstract : Nurses' beliefs about food and nutrition influence the care and advice they give patients, their families, nurses and others, but these beliefs have not been extensively researched before. This paper presents findings from the qualitative phase of a large q-methodology study that involved both quantitative and qualitative methods. The phase of the study reported here utilized a qualitative descriptive approach regarding a range of beliefs, and in-depth interviews with 240 participants who comprised 30 academics and 30 clinical nurses each from China, Thailand, Japan and Australia. Content analysis was employed to analyse the extracted data regarding their beliefs about nutrition and nutritional supplements, and the sources of these beliefs. Findings and resultant discussion are reported about 17 specific nutritional beliefs.

We concluded that many nurses in all the surveyed countries had some false and scientifically unsupported beliefs about nutrition, derived primarily from the media or personal experience. Study findings speak to the need for nurses to critically examine the sources of information they use in their practice and teaching, as well as a need for research to be reported responsibly and accurately. The review of the presented evidence about nutrition will assist nurses in their clinical and teaching practice, and hopefully inspire them to use evidence-based practice in future.

Pacific Rim Int J Nurs Res 2020; 24(1) 20-38

Keywords: Evidence-based practice, Health beliefs, Nurses, Nutrition, Nutritional supplements, Qualitative descriptive

Received 11 March 2019; Revised 4 April 2019; Accepted 17 May 2019

Introduction

Although nurses generally receive an education that is grounded in science, it does not always follow that their beliefs and practices are evidence-based. "Beliefs are internally held understandings filtered through one's worldview"^{1, p.563}. Nurses around the world hold health beliefs that may be influenced by many factors. These include ethnocultural-religious beliefs and practices handed down through generations² and information from many forms of modern media, especially the Internet, their friends and others, the environment, and their scientific education. This

Sue Turale, RN, DEd, FACN, FACMHN, Adjunct Professor, Faculty of Nursing, Chiang Mai University, Thailand and Editor, International Nursing Review, International Council of Nurses, Geneva, Switzerland. Email: INReditor@icn.ch

Correspondence to: Teresa Elizabeth Stone*, RN, RMN, BA, MHM, PhD, FACMHN, Adjunct Professor Faculty of Nursing, Chiang Mai University, Thailand and Yamaguchi University, Japan and Editor-in-Chief, Nursing and Health Sciences.

Email: teresa.stone@newcastle.edu.au

Warunee Fongkaew, RN, PhD, Professor, Faculty of Nursing, Chiang Mai University, Thailand. E-mail: warunee.fo@gmail.com

should be of great concern for the profession of nursing, for nurse educators and administrators, and the people that nurses care for, especially if the World Health Organization's Sustainable Development Goals are to be achieved. Deeply held, but erroneous, beliefs may be unconsciously or consciously passed onto patients and their families, or to other nurses, including students³, thus undermining the integrity of scientific

research, and the need for evidence-based practice based on contemporary findings. However, it is disconcerting that the literature is sparse on studies that have examined the health beliefs of nurses. We argue it is critical that nurses' beliefs are examined in context, including determining what beliefs they hold and the sources of these, since these beliefs often influence their actions and the care they give.

False beliefs that cannot be proven by science need to be examined and dispelled so that they are not perpetuated by nurses to their patients, their families, and others. In other words, nursing needs critical thinkers, nurses who hold positive beliefs that help people attain better health, and who do not hold false beliefs that may actually be harmful for health or have no valid reason to apply to practice. For these reasons we embarked on a large multi-country Asia-Pacific study to examine the health beliefs of nurses and nurse academics, and the source of these beliefs, using Q-methodology⁴. This research approach combines qualitative and quantitative methods and data, but is not well-known in nursing. Q-methodology has great potential to capture the viewpoints of people having similar or alternative viewpoints, and the similarities and differences between groups of people⁵. Our large study has provided a vast amount of findings regarding nurses' health beliefs about wide-ranging topics such as daily health practices, post-partum care, maternal and child health, beliefs about Western and traditional medicines, sleep and diet.^{3,4}

An Australian study estimated that most people (93%) have poor dietary behaviours although evidence-based guidelines for healthy eating are widely available⁶. Nurses have the expertise and responsibility in practice to make sure those in their care have their nutritional needs met. Further, nurses always need to assess the nutritional status of people and provide relevant advice for healthy eating to ensure good health and well-being.⁷ However, nurses many not necessarily be well-educated to

assess and provide this advice.⁸ In addition, the popular media frequently publishes information about nutrition which may be misleading and nurses may also be influenced by this. However, there is growing recognition of the importance of understanding the effects of culture on diet and its influence on health promotion⁹.

Research Question and Theoretical Approach

This paper presents findings regarding the research question: *What are the health beliefs of Japanese, Thai, Chinese and Australian clinical and academic nurses regarding nutrition and nutritional supplements, and what are the sources of these health beliefs?* A qualitative descriptive approach to this inquiry framed this phase of our study. According to Sandelowski¹⁰, this approach gives researchers the chance to provide a comprehensive summary of events, where they stay close to the data. This allows penetration into that data to present "the facts of the case in everyday language."^{10,p.336} Sandelowski argues that qualitative description is a pragmatic approach in contrast to interpretive qualitative methods that require highly abstract investigation of the meaning of data (such as phenomenology and grounded theory). And so, this approach was well suited in this study to examine the health beliefs of nurses, the sources of those beliefs and their perceptions regarding these.

Method

Design: Qualitative descriptive phase of a Q-methodology study.

Samples and Settings: Following research approval we distributed fliers and used purposive and snowball sampling to recruit a total of 240 nurses in university campuses and hospital settings in Japan,

Thailand, China and Australia. The sample size was determined by the larger Q-methodology study.⁴ The inclusion criteria were: being a registered nurse (RN); either a clinical nurse or academic; and having been a nurse for at least one year. Nurses who were not born and raised in the country in which the study was taking place were excluded.

Data Collection: Data was collected over 2015–2017. In keeping with the Q-methodology approach, participants engaged in quantitative data collection that involved them rating a set of 60 health beliefs on a scale of 1–5 as to whether or not they agreed with them. A set of health beliefs were then developed in the language of each country (such a set is called a *concourse* in Q-methodology language). These had been developed by the researchers following literature reviews, extensive expert discussions, and piloting with nurses in each country ensuring that the beliefs were appropriate to each culture. These diverse health beliefs were in the form of statements, for example “Chicken soup is good for colds”, “Newborn babies should not go out” and “It’s a good idea to have a glass of water before going to bed” (See **Table 1** for more examples). Some beliefs were tested in just one country, whilst others appeared across several countries. Following this, all participants engaged in an in-depth interview for around 1 hour regarding their answers to the health belief items. It is the qualitative data related to nutrition and nutritional supplements extracted from this second phase of collection that we present in this paper. These interviews were digitally recorded, and we explored in-depth the health beliefs that participants had agreed or disagreed with in the first part of data collection. We used a variety of open-ended questions such as “Can you tell me more about why you believe this?” and “Can you explain about where your belief about this came from?”.

Data Analysis: Transcripts were made from the recordings and these were read and re-read independently by the researchers to better understand the data. Then the transcripts were subjected to content analysis as described by Sandelowski¹⁰ to be a dynamic process that changes according to researchers’ immersion into the data and the practical need to find ways of analysing content from qualitative studies that are not highly theoretical. Reading and re-reading the data allowed for the identification of similarities, patterns, or congruence and incongruence between participants or within beliefs, and the extraction of direct data quotes about nutrition and particular nutritional beliefs. The extracted data was then categorised under the headings of relevant health beliefs in the *q*-methodology *concourse*, and also grouped according to the country of the participants. Qualitative description was then undertaken, summarising and highlighting the particular patterns of similarity and differences between countries and groups of nurses. After refinement we gave the descriptions of these to 5 participants in each country for member checking.¹¹ Although not perfect, this was a pragmatic approach as resources and study time were very limited. Then we refined the findings as necessary.

Ethical Considerations: Approval was given by the research ethics committees of the Faculty of Health Sciences, Yamaguchi University Japan; the Faculty of Nursing, Chiang Mai University, Chiang Mai, Thailand; HOPE School of Nursing, Wuhan University, Hubei, China; and The University of Newcastle, NSW, Australia. All participants were given verbal and written explanations in their own language of the research processes and their rights, such as confidentiality and ability to withdraw from the study. All participants signed an informed consent form prior to data collection. In each country local university faculty were involved to ensure that cross-cultural ethical considerations were attended to.

Study Trustworthiness: Lincoln and Guba's¹² criteria of credibility, transferability, dependability, and confirmability were used to try to ensure trustworthiness of study findings. Firstly, credibility refers to the confidence that the research findings are true, and we believe this was achieved by prolonged engagement in the field with multiple participants, having numerous meetings with participants and peers about the topic, testing our assumptions about health beliefs with peers, undertaking member checks, and making persistent observations. So as to judge if our findings might fit the health beliefs of nurses in other settings, we addressed transferability, using purposive sampling of participants who would know the topic well, and thick description of our findings. For dependability, that is, determining if our findings were constant over time, we used a clear audit trail and consistent analysis strategies. Training and feedback were given to all researchers interviewing participants to ensure consistency of methodology. Three researchers independently analysed the data, then compared and contrasted findings until consensus was achieved. Local researchers from the main study were involved when clarification of local context or analysis issues of the beliefs was required. Confirmability, or confidence that our findings were derived from the data, was also considered. This also involved using an audit trail and examining and analysing researchers' research notes.

Findings

The 240 participants consisted of 30 academics and 30 clinical nurses each from China, Thailand, Japan and Australia. In choosing to use a qualitative descriptive approach in this study, we were able to purposively extract data regarding nutrition and nutritional supplements as the broad interviews about nurses' health beliefs contained a large focus on these, a topic worthy of comparison and description between countries. Qualitative description is presented below under each of the nutrition health

beliefs in the q-methodology concourse, followed by the countries where they were investigated and the extracted data from various participants.

1. Going to bed right after eating leads to weight gain (China and Thailand)

Whilst Thai participants largely did not strongly agree or disagree with this statement, the majority of Chinese held this belief more emphatically. One male academic, Wang, explained:

Yes, I agree with this. Because foods cannot be taken and digested and metabolized if going to bed straight after eating, and it can be converted to fat easily. It is based on medical knowledge. Besides, I think people who have this habit can easily gain weight.

Three others stated:

I absolutely agree with this. I am an example. It's also from common sense. You don't even digest it, and you would definitely gain weight. (Hong, academic)

I agree with that. I got this information from a very young age. There is a saying in our hometown that going to bed right after eating leads to 200g or 250g weight gain. (Sun, academic)

However, in contrast, another female clinician, Wu, said:

I don't agree with this. Weight gain is related to the intake and output everyday, and it has nothing to do with sleep.

2. Sugar creates hyperactivity in children (Australia)

The majority of Australians agreed with this statement for example:

(I have) a little bit of experience with that but not a lot, because my kids never really became that hyperactive, but I have through parties watched other kids get really, really hyperactive, having cordials. (Lani, academic)

Yes. Well, I've seen it happen before my very own eyes. And I do know that parents with hyperactive children put them on reduced sugar diets ... (Tilly, academic)

I know from my children who went to other peoples' houses and were filled with sugar and looked after other peoples' children filled them with sugar and sent them back home. (Boyd, clinician)

However, the participants *did not* offer scientific evidence for this, but the majority who agreed with this statement cited personal experience or the experience of parents with hyperactive children. Only one participant (Sandra) offered a scientific explanation why she disagreed with the statement.

3. Chicken soup is good for colds (Australia and China)

The majority of academics agreed with this statement but few clinicians. Evidence was based mostly on advice from mothers or grandmothers. For example, Lydia (academic) said:

I am going to put yes (on this statement) because it does work even if it is not true. The Chinese and Vietnamese make porridge with chicken in it (congee). Whether it just makes you feel better...it still works. Mum would give me chicken noodle soup, in a packet! (laughs)

Whilst George (academic) believed: *It can work if the soup is made from scratch but not packet soup.* Lara (academic) argued against this belief saying:

I think this is just an old wives' tale. Chicken would taste good so it's more like a placebo thing.

This item was excluded from the main study in China because all 20 Chinese participants in the pilot study agreed with it since the use of chicken soup is prevalent in China when one has a cold.

4. Hara hachi bu: Eat until 80% full (Japan and China)

This is a Confucian teaching in both Japan and China which literally instructs people to eat until 80% full. (Also hara hachi bun me = 'belly 80% full'). Educators and clinical nurses overwhelmingly agreed with this in both countries but more so in China, where sources of evidence seemed engrained in everyday life and teachings from traditional Chinese medicine (TCM) and the media. A Chinese academic, Fong, said.

I think this is good for health. It has scientific evidence. Eat until 80% full and staying a little hungry is good for the human body. Eating too much can cause fat accumulation and add additional load to the body. I have seen it in textbooks and it's mainly from traditional Chinese medicine.

A clinical nurse, Yan, applied it to her nursing practice saying:

It's related to intestinal health and we teach patients to take meals on time and in proper amount and not eat too much.

In Japan, Risa (clinician), explained this belief as:

If you eat 80%, you don't either lose or gain weight. You can maintain normal body weight. I started to believe this after I started nursing.

5. Mixing different types of alcohol will make people more drunk than usual (Australia, Japan and China)

Chinese nurses overwhelmingly agreed with this statement, claiming a small amount of alcohol was good for circulation, citing as evidence the personal experiences of others, social media, the Internet or medical knowledge, for example:

I agree with it. It's from life experience and my friends experienced it. It's easy to get drunk. (Li, academic)

Others stated they would tell others about this, including patients. Australian participants firmly held this belief, without citing scientific evidence as a basis for their beliefs. An academic, Em, said:

Alcohol, you will get drunk either way, but if you do mix your drinks it seems to affect you further.

A clinical nurse, Keeva, agreed:

I believe this about mixing alcohol from observing and personal experience.

Many Japanese nurses also cited personal experience as a reason for believing this, such as Mitsuko, a female academic:

I get drunk easily. I have an experience that I had a hard time when drinking different types of alcohol. I try not to mix different types anymore.

Dai, another female academic, laughed when she said:

[If I drink] beer, wine, shochu (distilled spirit), and sake I stay drunk for a longer time. I get drunk quickly and stay drunk for longer.

Others, including Ao (clinician), were more sceptical:

Even if you drink just one type of alcohol, you get drunk depending on alcohol content. When I give guidance on alcohol, I don't mention mixing types but alcohol content and amount. I calculate alcohol amount by 350ml times alcohol content times 0.8 for beer. If it is 10% alcohol drink, the calculation will be 350 times 0.1 times 0.8.

Several Japanese nurses mentioned that they no longer believed in this because of what they had seen in the media, such as Mako (academic):

I watched a TV program which clearly said this is not true ... and also from a magazine.

6. A small amount of alcohol is good for health (China, Japan)

The majority of Chinese agreed that this was the case but in contrast Japanese nurses and academics disagreed. Academic Fan argued:

I think it's right, because there are so many health-related magazines and others saying that drinking a little amount of red wine is good for we females.

Asked about what magazines she was referring to Fan replied:

Not literature, just magazines people often read. I think it's like health education and I think people around us all with agree that. Teachers or friends around us usually drink a glass of red wine. So, it is actually good for health.

Lui (clinician) agreed:

I think a small amount of red wine is ok. The composition in red wine is good for health. I read this in health magazines and combine this with my professional knowledge.

In contrast, but still citing non-peer reviewed sources, Kazuhiko (Japanese academic) argued:

I am familiar with this belief for a long time and TV also says moderate consumption of alcohol is good for your health, but I cannot encourage patients to keep drinking.

7. Warm milk aids sleep (Australia and China)

Over two-thirds of Chinese nurses disagreed with this belief or had not tried it, including Liu (clinician):

There are some scientific reasons. Related popular science articles I have read said you may drink some warm milk if you can't easily sleep, but in my opinion there isn't any significant difference between warm water and warm milk. Either would help to make people feel warm and to fall asleep.

Contrarily, Hong (academic) argued:

The tyrosine (sic) in warm milk is good for sleep and it's based on medicine. We teach patients when doing health education.

In Australia, around one-third of academics and clinicians believed that there was some benefit to using warm milk to aid sleep, mostly explaining that self-experience or experiences of others was a basis for belief. For example: Lani (academic) said

Warm milk aids sleep. I think that's a nice one to believe in.

Natalie described her clinical leader's practice:

The clinical nurse consultant loves feeding the children on the mental health unit warm milk and honey.

Boyd (clinician) said:

Warm milk and honey – tryptophan in the milk. Most people think this is true, so it has a placebo effect.

8. Milk protects the gastro-intestinal tract (Australia, Thailand and Japan)

The above belief appeared in the concourses of three countries. No one agreed with this in Thailand, whereas in Australia, participants had mixed views, either agreeing, disagreeing or being ambivalent. For example, Josh (academic) stated:

I'm kind of neutral about that because I know it doesn't actually by itself protect the gastrointestinal tract but as a whole if you were taking medication with food then if you're not allowed to. ... in some cases milk could protect the gastrointestinal tract.

However, Eliza (clinician) said:

...milk can sooth it but it's not going to help with anything else.

Few Japanese participants had an opinion about this health belief. This possibly may be because drinking milk is often not a major part of the diet in Japan. However, Kaz argued that:

Milk forms a thin layer in the gastro-intestinal tract.

9. Women need to eat twice as much when pregnant (China)

One academic explained this was a traditional belief, and three clinicians agreed with the statement, but the rest of the Chinese participants disagreed with this statement. They believed that most women might eat more than usual during pregnancy, but needed to balance their diet and avoid medical problems through overeating. There were a variety of comments about medical knowledge and personal experiences influencing nurses' belief that women should not do this, for example, Heng, an academic, stated:

Some people really eat very little when pregnant; some cannot eat much because of morning sickness and in late pregnancy because the fetus may compress the stomach... based on medical knowledge, it's not right to eat twice as much because you cannot measure nutrition by multiples.

10. Drinking a glass of lukewarm water on an empty stomach in the morning is good for health (China)

The majority of Chinese participants agreed with this, based mainly on their personal experiences and medical sources, for example:

I do this every morning, not exactly lukewarm water. It's helpful for cleaning up the intestinal tract and bowel movements. (Sun, an academic)

I have heard of this from some reports. I am in the hemodialysis department and it's related to the kidney and we tell the patients to drink enough water. (Wu, a clinician)

11. Drinking eight glasses of water a day is necessary for good health (Australia)

This belief about water was strongly endorsed by both clinicians and academics. Bill, an academic, said:

Agree, can't drink enough. Mixture of how I know studied in anatomy and physiology, seen advertising campaigns.

Charlie, a clinician, argued:

Two litres is good. Staying hydrated. Being dehydrated leads to complications. Two litres is required. Gives me energy if I am properly hydrated.

Researcher: Do you pass this on to patients?

Charlie: I promote drinking water but not the exact amount.

However, Harrie, a clinician was adamant in disagreement:

I know from a kidney specialist, my dad had to go to a kidney specialist, and the specialist said that many people were drinking too much water. Two litres are too much. My colleague was told the same when she had kidney problems.

12. Cold food should not be eaten during menstruation (China)

The majority of Chinese participants held strong views agreeing with this, citing TCM, traditional beliefs or personal experience as their sources of evidence. Some also taught it to students, for example:

We learnt it and teach this to students. I think it's right and I agree with it, and I do it myself. (Xu, academic)

It's common sense. And it has scientific evidence. According to TCM, people may experience dysmenorrhea if they eat cold food. And there are many cases in clinical. In western medicine, they may not promote it, but in TCM, it's right. I agree with this. (Gao, academic)

I agree. I learnt this from some health education and it should also be avoided after delivery. It may stimulate the body according to TCM. I try to avoid cold food during menstruation and tell others to do so. (He, academic)

13. Going to bed right after eating leads to weight gain (China, Japan & Thailand)

Chinese participants were evenly divided on this belief, but there was no Thai who strongly believed this. Whilst some cited medical or scientific knowledge that this was correct, others drew on their experiences or learning from media or friends to claim this was true, for example, Liang (clinician) explained:

Yes, I agree with this. Because foods cannot be taken and digested and metabolized if going to bed straight after eating, and it can be converted to fat easily. It is based on medical knowledge. Besides, I think people who have this habit can easily gain weight.

Another clinical nurse, Han, disagreed:

I think it may cause indigestion, but I am not sure. I haven't seen any evidence.

Sachi, an academic from Japan, said that she would teach students about this belief. It was clear that participants were able to cite evidence for this belief.

14. Vitamin C can prevent colds (Thailand and Australia)

Only a minority of Thais strongly believed this, but the majority had some belief about it, for example:

From my own experience, whenever I feel tired and weak I eat fruit containing Vitamin C. ... working in an operation unit, I have seen doctors give vitamin C to patients. (Somporn, clinician).

This participant also stated her sources of knowledge were books and journals and she would pass on this information to people with surgical wounds and relatives. In Australia, participants did not strongly believe that this vitamin prevented colds. Most academics believed there was an association between boosting the immune system with the use of vitamin C. Jade, a clinician, indicated that:

Though – if I feel run down, or kids’ mouth ulcers or run down then I give them vitamin C. ... seems to work. Common knowledge, out there in the media. Fruit and veggies (vegetables) with high vitamin C tend to be the best.

15. Fresh fruits and vegetables are always more nutritious than frozen or canned. (China, Thailand & Japan)

Of all the health beliefs this was the one that participants were in agreement with across three countries. Around half of the Japanese participants really agreed with this whilst only two believed canned foods are better. For example, *There is no basis. Fresh food is better than frozen food* (Ako, academic) whilst Himeharu, (clinician), believed that *Tins are better as it shuts in all the nutrients.* This ‘fact’ was learnt from TV. Participants were largely unable to describe any scientific basis for their beliefs. However, Chinese participants agreed overwhelmingly with this belief, including Dong (academic):

Yes, it’s from our medical knowledge, because the vitamins and nutrients in food would be broken down when it’s frozen, and there may be some saccharin and additives in canned food, and it’s bad for health.

Cao (clinician) agreed:

It’s absolutely right. The nutrients may decrease when frozen or canned. Fresh ones are the best and canned ones may contain preservatives.

Thai participants also placed a high importance on using fresh fruits and vegetables rather than canned or frozen, for example:

I feel that natural substances should be good for health and should contain more nutrients... (Fah, academic).

Thai nurses based their beliefs on knowledge gained variously in high school, university, magazines, journals and television, and stated they would pass this knowledge onto others. Nok (clinician) claimed that:

Based on what I have learned, fresh vegetables and fruit are healthier than the frozen ones, because the vitamins still remain in the fresh vegetables and fruit.

16. Drinking green tea can prevent cancer (China)

Surprisingly, few Chinese participants believed this, given the amount of discussion dedicated to this topic on the Internet in recent years:

Actually, I don’t drink green tea myself so I’m not sure about the effects. But I read an article and it said the theophylline in green tea is good for health. So, I think it may be right. I agree with it. (Shen, academic).

The remainder were ambivalent or disagreed with the belief, stating advertising promoted the belief that cancer could be prevented by drinking green tea but that there was no scientific evidence. One academic, Fu, explained:

I may have heard about it but I haven’t seen any related literature and there isn’t any scientific support. It remains to be proven.

Peng, a clinician, believing in the benefits of green tea, said:

I have heard of this and I saw this on the Wechat (Chinese social media), but I don’t know the evidence. The belief has been popular in recent years.

17. Monosodium glutamate (MSG) in food is likely to cause headaches (Australia)

This belief was tested only in Australia because in the pilot studies nurses from the other countries had never heard of the belief and dismissed this as false. Thus, the belief that MSG is harmful is very much a culturally bound one. Most of the Australian nurses agreed with this statement but some had reservations, such as Lani (clinician):

I can't really say for sure, but you know, sometimes when you go and have Chinese (food) and it's heavily laden with MSG, that, you sort of, whether you talk yourself in to it, or, psychosomatic, but sometimes you... yeah, it's one of those myths I think.

Hannah (academic) recognised that the belief about MSG causing headaches was not based on science, but argued from personal experience that: *It does for me...sample of one!* Eric (clinician) argued that *MSG Causes me headaches when I have Chinese food* and several other clinical nurses mentioned the cause of the headache as being attributable to dehydration caused by the salt, such as Charlie:

MSG makes me thirsty, I have to get up and drink water in the night. You get headaches when dehydrated.

Discussion

The major finding of our study was that many nurses in all the surveyed countries had false and scientifically unsupported beliefs about nutrition gleaned primarily from the media or personal experience. Comprehensive details of evidence linked to the health beliefs in this study is presented in **Table 1**. The influence of culture was evident on the nurses' beliefs. Interestingly, whilst nurses from different countries had different beliefs, the way they reasoned and their sources of knowledge were similar. And while nurses cited evidence-based sources as foundation for some of their beliefs, many relied more on personal experience.

Table 1 Nutritional beliefs and related evidence

Health beliefs and references	Summary of evidence
Going to bed right after eating leads to weight gain ^{13,14,15}	Research on the timing of food intake being a determining factor in weight gain points to the role of the circadian system in weight regulation. Other studies found no link between eating late at night and weight gain and others have cited numerous confounding factors make it difficult to come to a firm conclusion.
Sugar creates hyperactivity in children ^{16,17}	Most studies have failed to find any effects associated with sugar, and the few studies that have found effects have been as likely to find sugar improving behaviour as making it worse. Studies have shown that when parents thought their children had consumed sugar that they rated them as more hyperactive.

Table 1 Nutritional beliefs and related evidence

Health beliefs and references	Summary of evidence
Chicken soup is good for colds ^{18,19}	Sometimes “old wives’ tales” do have some basis and this is so for chicken soup is good for colds. This has been recommended for influenza and colds since the twelfth century although the quality of evidence has been contested. Chicken soup has been found to have the hydrating and comforting qualities that some nurses stated as well as anti-inflammatory properties. Clear broth soups are hydrating because they contain water and salt and together these are good properties for hydration and it increases nasal mucus velocity but this effect is not lasting. From a Chinese medicine perspective chicken soup is thought to restore the yang forces and balance the cold of yin.
Hara hachi bu: Eat until 80% full ²⁰	The concept of hara hachi bu, eating until you are 80% full, has been a traditional dietary control to achieve good health and longevity among the Japanese. Preliminary research suggests that this can be an effective way to control weight and extend life: Okinawans famously remain active much longer than their peers in other areas of Japan and the key appears to be their lower caloric intake.
Mixing different types of alcohol will make people more drunk than usual ^{21,22}	This is a myth and is based on perceived effects and subjective evaluations regarding alcohol’s effects. Contrary to popular perception it is alcohol content, the amount of alcohol and speed at which it is ingested that affects blood alcohol content and intoxication.
A small amount of alcohol is good for health (China) ^{23,24,25}	The conventional wisdom that a small amount of alcohol is good for you is prevalent in the West, Japan and China. Recently concerns about methodologies and improvements in epidemiological methods for assessing causality have cast doubts about whether moderate alcohol consumption has a protective effect on health. While this conclusion remains contested, meta-analyses conclude that low-volume alcohol consumption has no net mortality benefit compared with lifetime abstention or occasional drinking. Alcohol, usually as rice wine, was traditionally used in China to promote breast feeding. Beer ingestion by the mother has been found to cause breast feeding infants to decrease the time on the breast and reduce milk production.
Warm milk aids sleep ^{26,27}	It is widely thought that because milk contains tryptophan, an amino acid used to manufacture the neurotransmitter melatonin that it can aid sleep. However, it is unlikely that there is sufficient tryptophan to create this effect instead it may be there is a placebo effect and, combined with a bedtime routine that this does aid sleep. Despite the evidence patient information leaflets still include scientifically fallacious information or out of date information.

Milk protects the gastro-intestinal tract ²⁸	<p>The accepted treatment for peptic ulcers used to be milk to sooth and treat the ulcer but milk also stimulates the production of hydrochloric acid and can exacerbate the problem.</p> <p>Commonly heard is the assertion that milk can “line the stomach” and people advocate drinking milk to slow down the effects of alcohol ingestion but this is likely to have only a modest effect on the rate of stomach emptying.</p>
Women need to eat twice as much when pregnant ^{13,29}	<p>During pregnancy, a pregnant woman’s nutrient requirements increase by between 10–15% but energy intake needs only to increase in the range of 15–25% and not by twice as much. In Japan weight gain guidelines are lower than the recognised US Institute of Medicine gestational weight gain guidelines for women in Western countries. It is not unknown for pregnant mothers to be admitted to reduce their weight. Researchers are now calling on these limits to be lifted because they result in low birthweight babies.</p>
Drinking a glass of lukewarm water on an empty stomach in the morning is good for health ^{30, 31}	<p>Evidence on this belief is lacking. Gillespie³⁰ on a Reader’s Digest site makes several claims for hot water including weight loss, relief of constipation, clearing sinuses, protecting teeth, pain relief and clearing out toxins. These claims do not link to published evidence. The precepts of Chinese medicine dictate balance and hot or warm water is considered essential to balance cold.</p>
Drinking eight glasses of water a day is necessary for good health ^{32,33}	<p>Despite all the media claims, to the contrary there is no evidence that eight glasses is a requirement, in addition there is no evidence that beverages such as coffee and tea somehow do not “count” in maintaining hydration. Neither is it true that by the time one feels thirst that one is already dehydrated and there is no convincing evidence that increasing fluid intake prevents constipation. However, neither is there convincing evidence that drinking less than eight glasses of water a day does not do harm. Bottled water manufacturers have a vested interest in encouraging this notion.</p>
Cold food should not be eaten during menstruation ^{34,35}	<p>This belief originates from Chinese traditional medicine which divides food and drink into five “essences”: cold, cool, neutral, warm, and hot depending on the effect they have on the body. Menstrual symptoms are interpreted as an imbalance between blood and Qi (body vital energy) and food classified as cold and cold foods such as ice cream and iced water are avoided.</p>
Going to bed right after eating leads to weight gain ^{13,36}	<p>There are a number of sites advising against going to bed right after eating for a variety of reasons including that the body was designed to digest food in an upright position³⁷ and other sites advising that it is calories in and out that count but that late-night food choices may be unhealthy ones³⁸. More credible research suggests that timing of meals can affect weight gain in rats¹³ but it is clear that weight gain is more strongly linked to factors such as type of food and quantity of consumed, exercise, television watching and alcohol intake and that despite changes in digestion and fat absorption caused by circadian rhythms eating just prior to sleeping does not cause weight gain³⁹.</p>

Vitamin C can prevent colds ^{40,41}	Evidence, including a systematic review, suggests there is little evidence that vitamin C supplementation (0.2g per day or more) is beneficial in terms of reducing the incidence of colds. Routine Vitamin C supplementation is not justified.
Fresh fruits and vegetables are always more nutritious than frozen or canned ^{42,43}	Loss of nutrients during fresh storage may be substantial and freezing and canning processes may preserve nutrients. Nutrients can leak into the cooking water and minerals lost if fruit and vegetables are peeled. Thus, frozen food may sometimes be more nutritious. With regard to Vitamin C and other nutrients in canned and frozen food the nutritional value is dependent on the variety of fruit and vegetables processed. Usually canned and frozen fruits are as nutritious as fresh although Chinese participants voiced some well-founded concerns about the quality of locally processed food.
Drinking green tea can prevent cancer ^{44,45}	Green tea may be protective against both chronic gastritis and stomach cancer and green, oolong, and white teas may improve blood variables that are biomarkers for metabolic syndrome and maintaining or enhancing energy expenditure to maintain a healthy body weight.
MSG can cause headaches ⁴⁶	Has been named as a cause of asthma, migraines, hypertension and heart disease, dehydration, chest pains, depression, attention deficit disorder, anaphylactic shock, Alzheimer's and Parkinson's diseases and allergies but this has not been demonstrated in placebo-controlled trials.

What struck us as researchers was that in each of the countries the participants seldom used scientific resources as a source of evidence for their beliefs, preferring to cite personal experience, the wisdom of their family members or friends, social media, or the Internet to explain where they received knowledge about a health belief. Our findings correlated with earlier studies^{47,48,49,50} that nurses in a number of countries often do not integrate research findings into their practices. Rather they use knowledge sourced from social interactions and experience. For example, everyday health advice appeared to influence our participants quite strongly because knowledge often came from multiple sources and this seemed to hinder them from being critical about beliefs that had no scientific evidence. Further, whilst nurses are positive to evidence-based practice, they only practice it to a small extent.⁵¹ This is very concerning, especially

when nurses are in the critical position of passing on knowledge to patients and their families, other nurses and students, and when the nursing profession is attempting to focus on evidence for practice.

Nutrition and weight

In terms of examining the nurses' responses against current best practice the items were selected on the basis that nurses surveyed in the pilot studies had a range of divergent opinions about the items. In part this is because many are widespread in the media such as *going to bed right after eating leads to weight gain* and the necessity of drinking eight glasses of water per day. Internet sites giving this information rarely list primary references but it is clear that participants remember and cite this information.

Nutritional research is perhaps particularly problematic because it is frequently picked up by the popular media and reported uncritically. There is a growing recognition that p values are widely misunderstood and misused and up to 40% of research may turn out to be false⁵². Undeclared conflicts of interest, for example research sponsored by the sugar industry downplayed the role of sucrose as a dietary cause of coronary heart disease, have led to misleading guidelines which have been in place for decades.⁵³ In addition, “facts” especially those related to nutrition become obsolete or are based on dubious research⁵⁴. Even landmark papers such as that advocating a Mediterranean diet published in the *New England Journal of Medicine* have been retracted because of problems with randomisation⁵⁵.

There are a number of sites advising against going to bed right after eating for a variety of reasons, including that the body was designed to digest food in an upright position³⁷ and other sites advising that it is calories in and out that count but that late night food choices may be unhealthy ones³⁸. More credible research suggests that timing of meals can affect weight gain in rats¹³ but it is clear that weight gain is more strongly linked to factors such as type of food and quantity of consumed, exercise, television watching and alcohol intake³⁶, and that despite changes in digestion and fat absorption caused by circadian rhythms eating just prior to sleeping does not cause weight gain⁵⁶.

Most Australian nurses agreed with the statement that *sugar creates hyperactivity in children* despite evidence to the contrary going back over many years.^{57,58,17} Asked what would change their mind about this item some participants said that nothing would because they had witnessed and experienced this. The immediacy of personal experience is one of the reasons that misconceptions persist, even if there is a false attribution for a phenomenon.

Chicken soup as medicine is a cross-cultural phenomenon, has been termed “Jewish penicillin” and was used in ancient Greece, and in Chinese medicine is thought “to restore the yang forces and balance the cold of yin”.⁵⁹ It was clear that that Chinese nurses in this study still viewed illness as an imbalance between yin and yang. Certainly, while nurses are justified in recommending chicken soup to people with colds and ‘flu, it is unlikely to harm and likely to help.

Despite nurses citing personal experience there is no evidence that *mixing different types of alcohol will make people more drunk than usual*. The critical factor is the alcohol content, and the amount and speed at which alcohol is ingested.²² Some participants were adamant that they had experienced this and declared that they would pass on this health information. It is likely that one’s expectations of what effect alcohol will have is reasonable in part for this strongly held false belief.⁶⁰ Drug and alcohol education is part of a nurse’s role and they need to be able to give accurate advice about this.

Drinking milk was not widespread in China but the country’s increasing wealth has meant that drinking milk is now seen as a status symbol whereas before it had been seen as the food of the “barbarian”.⁶¹ Warm milk and warm milk with honey or a malt has traditionally been used as a sleep aid in the West.⁶² The nurses in the study voiced a prevalent belief that because milk contains tryptophan, an amino acid used to manufacture the neurotransmitter melatonin, it can aid sleep. However, it is unlikely that there is sufficient tryptophan to create this effect. It is likely that there is a placebo effect and, combined with a bedtime routine, drinking milk does aid sleep.²⁶ In this instance most of the nurses were right but for the wrong reasons.

An American food writer once remarked that if MSG was bad for you, why doesn’t everyone in China have a headache?⁶³ As with other beliefs

nurses need to exercise caution in advising people to avoid MSG: ‘there is no convincing evidence that it causes systemic reactions resulting in severe illness or death.’⁶⁴

Conclusions and Implications for

Nursing Practice

One strength of our study was that as researchers we worked with experts within each country, undertook extensive literature reviews in both English and other languages, and pilot testing, before deciding on the concourse of health beliefs to be used in each of the four countries. However, this led to a study limitation, since not all health beliefs were the same across countries, making full comparison impossible. The 17 health beliefs about nutrition as described above require much more investigation. However, we conclude that qualitative analysis of the range of nutritional health beliefs has provided a rich tapestry of findings particular to or shared across countries. To our knowledge this is the first comprehensive study of nurses’ health beliefs across the four countries, and disappointingly nurses often do not use scientific evidence to substantiate or dismiss health beliefs about nutrition and nutritional supplements.

Nurses are relied upon by the public and by their patients and their students for credible and current advice about health. Much advice online is misleading or outdated, and while there has been concern expressed about the information misleading the general public, it is clear that nurses too need to be able to evaluate the quality of online information. It is easy to be critical of nurses for not knowing the science behind every day nutritional advice that they may be asked about by the general public. However, in many cases the evidence is not easy to find and other health professionals may be just as likely to be misled by assumptions they hold about food and food supplements. More scrutiny of the quality of the

information available online and guidance for users on the credibility of websites would be useful for both the general public and health professionals.

Our overview of the current evidence on nutrition and dietary research regarding a number of health beliefs will assist nurses in their teaching and clinical practice. However, it is clear that since nurses are primary sources of information for patients, their families and communities, as well as other nurses, then substantive research involving a range of qualitative and quantitative methods is required on the topic, as well as the profession being willing to use solid evidence for practice, teaching and policy.

Acknowledgements

We sincerely thank our participants for their valuable insights, and the funders of this research, the Japan Society for the Promotion of Science, Grant-in-Aid for Scientific Research, KAKANHI Grant Number 26463210.

References

1. Brown AW, Ioannidis JP, Cope MB, Bier DM, Allison DB. Unscientific beliefs about scientific topics in nutrition. *Advances in Nutrition: An Intern Review J.* 2014; 5(5):563-5.
2. Spector RE. Cultural diversity in health and illness. *J Trans Nurs.* 2002;13(3):197-9.
3. Cai D, Stone TE, Petrini MA, McMillan M. An exploration of the health beliefs of Chinese nurses’ and nurse academics’ health beliefs: A Q-methodology study. *Nurs & Health Sci.* 2016;18(1):97-104.
4. Stone TE, Maguire J, Kang SJ, Cha C. Practical issues of conducting a Q methodology study: Lessons learned from a cross-cultural study. *Adv in Nurs Sci.* 2017;40(3).
5. Akhtar-Danesh N, Baumann A, Cordingley L. Q-Methodology in nursing research: A promising method for the study of subjectivity. *West J of Nurs Res.* 2008;30(6):759-73.
6. Cass S, Chaboyer W, Ball L, Leveritt M. Effect of nutrition care provided by primary health professionals on adults’ dietary behaviours: a systematic review. *Family Pract.* 2015;32(6):605-17.

7. Xu X, Parker D, Ferguson C, Hickman L. Where is the nurse in nutritional care? *Contem Nurs*. 2017;53(3):267–70.
8. Murphy JL, Girot EA. The importance of nutrition, diet and lifestyle advice for cancer survivors – the role of nursing staff and interprofessional workers. *J of Clin Nurs*. 2013;22(11–12):1539–49.
9. Mollohan EA. Dietary culture: A concept analysis. *Adv in Nurs Sci*. 2018;41(4):E1–E12. Accessed 10 May 2019.
10. Sandelowski M. Whatever happened to qualitative descriptive? *Res in Nurs and Health*. 2000;23:334–40.
11. Speziale HS, Streubert HJ, Carpenter DR. *Qualitative research in nursing: Advancing the humanistic imperative*: Lippincott Williams & Wilkins; 2011.
12. Lincoln YS, Guba EG. *Naturalistic inquiry*: Sage; 1985.
13. Arble DM, Bass J, Laposky AD, Vitaterna MH, Turek FW. Circadian timing of food intake contributes to weight gain. *Obesity*. 2009;17(11):2100–2.
14. Kinsey AW, Ormsbee MJ. The health impact of nighttime eating: old and new perspectives. *Nutrients*. 2015;7(4):2648–62.
15. Bevins F, De Smet A. Making time management the organization’s priority. *McKinsey Quarterly*. 2013;January.
16. Newman BY. Medical myths even some doctors believe. *Optometry – Journal of the American Optometric Association*. 2009;80(8):413–4.
17. Wolraich ML, Wilson DB, White JW. The effect of sugar on behavior or cognition in children: a meta-analysis. *JAMA*. 1995;274(20):1617–21.
18. Lipman TO. The chicken soup paradigm and nutrition support: rethinking terminology. *J of Parental and Enteral Nutr*. 2003;27(1):93–4.
19. Welsh A. Chicken soup for colds and flu: Does it really help? USA: CBS Interactive Inc; 2016 [
20. Imai S-i. SIRT1 and caloric restriction: an insight into possible trade-offs between robustness and frailty. *Curr Opin in Clin Nutri and Metab Care*. 2009;12(4):350.
21. Ashton K, Bellis MA, Davies AR, Hughes K, Winstock A. Do emotions related to alcohol consumption differ by alcohol type? An international cross-sectional survey of emotions associated with alcohol consumption and influence on drink choice in different settings. *BMJ Open*. 2017;7(10):e016089.
22. Lee N. *Do different drinks make you different drunk?* Sydney: The Conversation; 2017 [Available from: https://theconversation.com/do-different-drinks-make-you-different-drunk-8247?utm_medium=email&utm_campaign=Latest%20from%20The%20Conversation%20for%20December%201%202017%20-%2089157484&utm_content=Latest%20from%20The%20Conversation%20for%20December%201%202017%20-%289157484+CID_5bf585fc1fa4fc27d8ee653005250c48&utm_source=campaign_monitor&utm_term=Do%20different%20drinks%20make%20you%20different%20drunk]. Accessed 10 May 2019.
23. Cao Y, Willett WC, Rimm EB, Stampfer MJ, Giovannucci EL. Light to moderate intake of alcohol, drinking patterns, and risk of cancer: results from two prospective US cohort studies. *BMJ*. 2015;351:h4238.
24. Du DH, Bruno R, Dwyer T, Venn A, Gall S. Moderate alcohol consumption is associated with a decreased prevalence of some but not all cardio-metabolic risk factors in young adults. *Am Heart Assoc*; 2016.
25. Stockwell T, Zhao J, Panwar S, Roemer A, Naimi T, Chikritzhs T. Do “moderate” drinkers have reduced mortality risk? A systematic review and meta-analysis of alcohol consumption and all-cause mortality. *J of Stud on Alcohol and Drugs*. 2016;77(2):185–98.
26. O’Connor A. *The claim: a glass of warm milk will help you get to sleep at night* New York: NY Times; 2007.
27. St-Onge M-P, Mikic A, Pietrolungo CE. Effects of diet on sleep quality. *Adv in Nutr*. 2016;7(5):938–49.
28. Mellor D. *Lining your stomach with milk before a big night out – and other alcohol myths* Sydney: The Conversation; 2017 [Available from: <https://theconversation.com/lining-your-stomach-with-milk-before-a-big-night-out-and-other-alcohol-myths-88116>].
29. Suzuki S. Optimal weight gain during pregnancy in Japanese women. *J of Clin Med Res*. 2016;8(11):787.
30. Gillespie C. *Seven super surprising benefits of drinking plain hot water USA: Reader’s Digest*; nd. Available from: <https://www.rd.com/health/wellness/benefits-of-drinking-hot-water/> Accessed 10 May 2019.
31. Traverso V. *Are China’s days of hot drinking water over?* New York: Atlas Obscura; 2018. Available from: <https://www.atlasobscura.com/articles/china-hot-drinking-water-traditional-medicine> Accessed 11 May 2019.

32. Valtin H. "Drink at least eight glasses of water a day." Really? Is there scientific evidence for "8×8"? *Amer J of Physiology-Regulatory, Integrative and Comparative Physiology*. 2002;283(5):R993-R1004.
33. Wolf R, Wolf D, Rudikoff D, Parish LC. Nutrition and water: drinking eight glasses of water a day ensures proper skin hydration—myth or reality? *Clinics in Dermat*. 2010;28(4):380-3.
34. Gould-Martin K. Hot cold clean poison and dirt: Chinese folk medical categories. *Soc Sci & Med Part B: Med Anthro*. 1978;12:39-46.
35. Liu HL, Chen KH, Peng NH. Cultural practices relating to menarche and menstruation among adolescent girls in Taiwan—qualitative investigation. *J of Ped and Adol Gyne*. 2012;25(1):43-7.
36. Mozaffarian D, Hao T, Rimm EB, Willett WC, Hu FB. Changes in diet and lifestyle and long-term weight gain in women and men. *New Engl J of Med*. 2011;364(25):2392-404.
37. Bedwell SJ. Seven tips for better digestion USA: Self.com; 2011. Available from: <https://www.self.com/story/7-steps-to-better-digestion> Accessed 8 May 2019.
38. Cespedes A. Do You get fat if you sleep after eating? Texas: Livestrong Foundation; 2017. Available from: <https://www.livestrong.com/article/410000-do-you-get-fat-if-you-sleep-after-eating/> Accessed 9 May 2019
39. Fong M, Madigan C. Should we eat breakfast like a king, lunch like a prince, and dinner like a pauper? Sydney: The Conversation; 2017. Available from: <https://theconversation.com/should-we-eat-breakfast-like-a-king-lunch-like-a-prince-and-dinner-like-a-pauper-86840> Accessed 3 May 2019.
40. Allan GM, Arroll B. Prevention and treatment of the common cold: making sense of the evidence. *Canad Med Assoc J*. 2014;186(3):190-9.
41. Hemilä H, Chalker E. Vitamin C for preventing and treating the common cold. *The Cochrane Library*. 2013.
42. Bouzari A, Holstege D, Barrett DM. Vitamin retention in eight fruits and vegetables: a comparison of refrigerated and frozen storage. *J of Agric and Food Chem*. 2015;63(3):957-62.
43. Rickman JC, Barrett DM, Bruhn CM. Nutritional comparison of fresh, frozen and canned fruits and vegetables. Part 1. Vitamins C and B and phenolic compounds. *J of the Sci of Food and Agric*. 2007;87(6):930-44.
44. Hursel R, Westerterp-Plantenga MS. Catechin- and caffeine-rich teas for control of body weight in humans. *The Amer J of Clin Nutr*. 2013;98(6):1682S-93S.
45. Setiawan VW, Zhang ZF, Yu GP, Lu QY, Li YL, Lu ML, et al. Protective effect of green tea on the risks of chronic gastritis and stomach cancer. *Intern J of Cancer*. 2001;92(4):600-4.
46. Matthew F. Reconsidering the effects of monosodium glutamate: A literature review. *J Amer Acad of Nurs Pract*. 2006;18(10):482-6.
47. Dalheim A, Harthug S, Nilsen RM, Nortvedt MW. Factors influencing the development of evidence-based practice among nurses: a self-report survey. *BMC Health Serv Res*. 2012;12(1):367.
48. Estabrooks CA, Rutakumwa W, O'Leary KA, Profetto-McGrath J, Milner M, Levers MJ, et al. Sources of practice knowledge among nurses. *Qual Health Res*. 2005;15(4):460-76.
49. Thompson DS, Estabrooks CA, Scott-Findlay S, Moore K, Wallin L. Interventions aimed at increasing research use in nursing: a systematic review. *Implem Sci*. 2007;2(1):15.
50. Thompson C, McCaughan D, Cullum N, Sheldon TA, Mulhall A, Thompson DR. Research information in nurses' clinical decisionmaking: what is useful? *J Advan Nurs*. 2001;36(3):376-88.
51. Stokke K, Olsen NR, Espehaug B, Nortvedt MW. Evidence based practice beliefs and implementation among nurses: a cross-sectional study. *BMC Nurs*. 2014;13(1):8.
52. Clinton P. Almost 40% of peer-reviewed dietary research turns out to be wrong. Here's why USA: The New Food Economy; 2018. Available from: <https://newfoodeconomy.org/nutrition-research-statistics-problem/> Accessed 9 May 2019.
53. Kearns CE, Schmidt LA, Glantz SA. Sugar industry and coronary heart disease research: a historical analysis of internal industry documents. *JAMA Internal Med*. 2016;176(11):1680-5.
54. Arbesman S. The half-life of facts: Why everything we know has an expiration date. New York: Penguin; 2013.
55. McCook A. Errors trigger retraction of study on Mediterranean diet's heart benefits New York: NPR Science Desk/Retraction Watch; 2018
56. Fong M, Caterson ID, Madigan CD. Are large dinners associated with excess weight, and does eating a smaller dinner achieve greater weight loss? A systematic review and meta-analysis. *British J of Nutri*. 2017;118(8):616-28.

57. Milich R, Wolraich M, Lindgren S. Sugar and hyperactivity: A critical review of empirical findings. *Clin Psych Rev.* 1986;6(6):493-513.
58. Wender EH, Solanto MV. Effects of sugar on aggressive and inattentive behavior in children with attention deficit disorder with hyperactivity and normal children. *Pediatrics.* 1991;88(5):960-6.
59. Thomas M. Monday's medical myth: chicken soup cures the common cold Sydney: The Conversation; 2011. Available from: <https://theconversation.com/mondays-medical-myth-chicken-soup-cures-the-common-cold-1955> Accessed 9 May 2019
60. Pedersen ER, Neighbors C, Larimer ME. Differential alcohol expectancies based on type of alcoholic beverage consumed. *J of Stud on Alcohol and Drugs.* 2010;71(6):925-9.
61. Wiley AS. Milk for "Growth": Global and local meanings of milk consumption in China, India, and the United States. *Food and Foodways.* 2011;19(1-2):11-33.
62. Southwell P, Evans C, Hunt J. Effect of a hot milk drink on movements during sleep. *BMJ.* 1972;2(5811):429-31.
63. Renton A. If MSG is so bad for you, why doesn't everyone in Asia have a headache? London: The Guardian; 2005. Available from: <https://www.theguardian.com/lifeandstyle/2005/jul/10/foodanddrink.features3> Accessed 9 May 2019.
64. NSW Government. Monosodium glutamate (MSG) Sydney: NSW Government, Australia; 2018.

ความเชื่อเกี่ยวกับโภชนาการเพื่อสุขภาพของพยาบาลในประเทศญี่ปุ่น ไทย จีน และออสเตรเลีย

Sue Turale, Teresa Elizabeth Stone*, วารุณี ฟองแก้ว

บทคัดย่อ : ความเชื่อของพยาบาลเกี่ยวกับอาหาร และโภชนาการมีอิทธิพลต่อการดูแล และคำแนะนำที่ให้แก่ผู้ป่วย ครอบครัว พยาบาล และบุคคลอื่นๆ แต่ยังไม่ได้มีการศึกษาอย่างครอบคลุม บทความนี้เป็นส่วนหนึ่งของงานวิจัยที่ใช้ระเบียบวิธี คิวที่ใช้วิธีการทั้งเชิงปริมาณและคุณภาพ โดยนำเสนอผลการศึกษาที่ใช้วิจัยเชิงคุณภาพแบบพรรณนาเพื่อศึกษาความเชื่อที่หลากหลาย โดยสัมภาษณ์ผู้ให้ข้อมูลจำนวนทั้งหมด 240 คน ประกอบด้วยพยาบาลวิชาการ 30 คน และพยาบาลคลินิก 30 คน จากแต่ละประเทศ ได้แก่ จีน ไทย ญี่ปุ่น และออสเตรเลีย ใช้วิธีการวิเคราะห์ข้อมูลเชิงเนื้อหาเพื่อสกัดสาระความเชื่อเกี่ยวกับภาวะโภชนาการ และผลิตภัณฑ์เสริมอาหาร และแหล่งที่มาของความเชื่อด้านสุขภาพ ผลการศึกษาพบว่า มี 17 ความเชื่อเกี่ยวกับภาวะโภชนาการ ซึ่งสามารถสรุปได้ว่าพยาบาลส่วนใหญ่ในกลุ่มประเทศเหล่านี้มีความเชื่อที่ไม่ถูกต้อง และมีความเชื่อที่ขาดข้อมูลสนับสนุนเชิงวิชาการเกี่ยวกับอาหารจากสื่อ หรือประสบการณ์ส่วนบุคคล

ผลการศึกษาแสดงให้เห็นว่าพยาบาลต้องมีวิจาร์ณญาณในการพิจารณาแหล่งที่มาของข้อมูลที่ใช้ในการปฏิบัติ และการสอน รวมถึงการทำวิจัยเพื่อนำเสนอผลการศึกษาอย่างมีความรับผิดชอบ และถูกต้องแม่นยำ การทบทวนข้อมูลที่ทันสมัยเกี่ยวกับโภชนาการจะช่วยพยาบาลในการปฏิบัติงานในคลินิกและการสอน และช่วยสร้างแรงบันดาลใจในการใช้ข้อมูลเชิงประจักษ์ต่อไป

Pacific Rim Int J Nurs Res 2020; 24(1) 20-38

คำสำคัญ : ความเชื่อด้านสุขภาพ การพยาบาล โภชนาการ เกี่ยวกับอาหาร ระเบียบวิธี คิว

Sue Turale, RN, DEd, FACN, FACMHN, Adjunct Professor, Faculty of Nursing, Chiang Mai University, Thailand and Editor, International Nursing Review, International Council of Nurses, Geneva, Switzerland.
Email: INReditor@icn.ch

Correspondence to: Teresa Elizabeth Stone*, RN, RMN, BA, MHM, PhD, FACMHN, Adjunct Professor Faculty of Nursing, Chiang Mai University, Thailand and Yamaguchi University, Japan and Editor-in-Chief, Nursing and Health Sciences.
Email: teresa.stone@newcastle.edu.au

วารุณี ฟองแก้ว, RN, PhD, ศาสตราจารย์ คณะพยาบาลศาสตร์ มหาวิทยาลัยเชียงใหม่ ประเทศไทย E-mail: warunee.fo@gmail.com