

EGG PHOBIA IN RETIREMENT HOMES: HEALTH RISK PERCEPTIONS AMONG ELDERLY CHINESE

ABSTRACT. Studies pertaining to health promoting behavior in daily life have received scant attention among medical anthropologists. The present study addresses this issue by means of an empirical analysis of perceptions and behaviors concerning a daily food item – eggs. Data were collected via in-depth interviews as well as participant observation in four retirement homes – two in Los Angeles and two in Taipei, Taiwan. The results reveal that practices of egg-restriction are pervasive throughout the four homes. Cholesterol has become a commonly-discussed issue in the daily lives of the 203 residents interviewed, and many of them were found to be preoccupied with the risk involved in excess consumption (especially of egg yolks) and increased serum cholesterol levels. Four forces: health professionals, family members, peer groups and mass media play important roles in constructing egg-consumption behaviors among the elderly subjects. The cognitive, psychological and behavioral impact of health information on elderly subjects has been discussed herein. It may be argued that the ‘egg issue’ reflects a shift in previous health paradigm thinking due to the biomedicalization of health promotion among Chinese elderly.

KEY WORDS: Chinese elderly, Egg consumption, Cholesterol, Risk perceptions, Biomedicalization of health promotion

INTRODUCTION

This paper explores the impact of the current health promotion movement on a group of elderly Chinese by illustrating perceptual and behavioral representations surrounding a specific food item – eggs. While health promotion has received enormous attention in recent decades, there has been a lack of in-depth investigation of the meanings of health-related behaviors in daily life; the vast majority of research in this area has been focused on the distribution and effects, rather than on the nature and perceptual aspects of behavior.

Among the daily behavior domains which are of major interest to health promotion research, dietary practice is perhaps the most widely discussed and of greatest interest to medical anthropologists. However, this domain has rarely been examined in light of the current enthusiasm over health promotion. As an old research area in a new framework of inquiry, dietary practices are strongly linked to the concept of risk factors – a predominant

avenue of health behavior conceptualization. Whereas epidemiologists are primarily concerned with identifying the risk factors associated with individual diseases, social scientists are more interested in how people perceive and respond to those risk factors. This is a new direction in illness behavior research (Cleary 1986). An individual's risk assessment depends on cognitive, personality, situational and cultural factors, all of which may lead to an over or under-estimation of risk.

The concept of risk factor came from the quantitative rigors of epidemiological research. The notion is exotic to lay conceptualizations of disease etiology. As Gifford (1986) has indicated in her case study of a young breast cancer patient, the concept of risk – though derived from statistical measurement – embodies numerous ambiguities:

Risk for the lay women is experienced as a symptom of a hidden or future illness. . . . Inherent within lay perceptions of risk is a high degree of unmeasured uncertainty: risk for women is not objective or measured. Lay risk has its own terms of reference and requires a different analytic approach to understand more fully how it is experienced by lay women. (Gifford 1986: 230)

Increased awareness of risk factors has accompanied the growth of health consciousness among lay persons. In contemporary Chinese society, the ideology behind and practice of health promotion is increasingly dominated by the biomedical paradigm. The power of biomedical concepts to control people's daily living – a phenomenon known as the medicalization of daily life – has been analyzed (Crawford 1980; Goldstein 1992; Illich 1975), but its impact on lay perceptions and practices is yet to be investigated empirically in different cultures (Lock and Scheper-Hughes 1990).

The present study is limited to examining dietary behavior. The Chinese culture is food-oriented (Chang 1977); Chinese use food to mark ethnicity, culture change, calendric and family events, and social transactions (Anderson 1988: 199). Moreover, it has been asserted that there exists a blurred boundary between food and medicine in Chinese dietary practices, and that a strong undercurrent of health maintenance and promotion is already deeply embedded in Chinese daily dietary beliefs (Chen 1973; Ho and Chan 1985; Koo 1984). Today, while Chinese still adhere to culturally-conventional wisdom in food habits, concepts relating to Western nutritional science have also been widely accepted. In fact, it is these biomedical nutritional concepts that are now gaining legitimate status in current health promotion policies in Taiwan.

The central focus of this article is on egg consumption in retirement homes. The issue is controversial and the settings are unique for the study of daily health-promoting behavior. Traditionally considered to be a high-status dietary item, today the egg is usually viewed in terms of chole-

terol, reflecting a preoccupation with cardiovascular disease prevention. By investigating how perceptions of a formerly precious daily food item were ambivalently changed in the context of a real-life situation such as in a retirement home, this paper will serve as an example for illuminating the phenomenon of the biomedicalization of health promotion in contemporary Chinese societies.

THE EGG TRADITION IN CHINESE MEDICINE AND SOCIETY

The egg has always been valued by Chinese – not only for its flavor, ease of preparation and quality, but also for the numerous symbolic meanings attached to it. Its smooth, round shape is held in high regard, and its reproductivity is seen as embracing the rhythm of life.

Eggs symbolize completeness, vitality and prosperity, and hence are a requisite food item during festivals and other special occasions. Whole eggs are considered to be vital items on birthdays and at weddings. For example, in Zhejiang Province, during wedding festivities, girls used to roll eggs down the bride's breast so that they fell into her lap. Painted eggs were used in the ceremony of washing the bride (Eberhard 1986: 90–91). In Taiwan, dyed red eggs are still often distributed to neighbors, relatives and friends to celebrate the 30th day following the birth of a child. If the new born is a son, the mother's family sends over gifts of food, among which a basket of eggs holds a special place (Hsu and Hsu 1977: 303).

The egg is also requisite for certain religious transactions. In certain areas, red-colored eggs are offered by women as ritual sacrifices when asking the gods for birth of a son. Undyed eggs, however, are seen at more routine ceremonies (Anderson and Anderson 1977: 378). In South China the egg is used as a means of foretelling the future. An egg is first beautifully painted and boiled, and then opened. Predictions are then made according to the shape taken by both the yolk and the white. It is in these areas as well that the egg is closely related to most of the myths (Eberhard 1986: 91).

Eggs have always been considered as restorative food in certain cases of illness and also for women who are 'doing the month'.¹ At one time, eating eggs indicated a family's high socio-economic status. For common people (especially adults), eggs were considered a luxury item. Custom once held that children and elders enjoyed first priority in consuming eggs when supplies were limited.

The medicinal value of eggs is quite well recorded in the classical Chinese pharmacopoeia *Ben Cao Gang Mu* (the Compendium of Materia Medica). It states that egg consumption helps to stabilize the five major

organs (*an wu zang*) and nourish an individual's yin (*zhi yin*). The egg yolk is considered to be the essence of flesh and blood. It tastes luscious and heavy, so it is supposed to be able to supplement weakness (*bu xu*). The egg white is believed to serve as a protective membrane. It tastes light, so it is supposed to be able to help in the growth of new skin and also to dry rottenness (*zao fu lan*).

Due to their multiple roles in the Chinese dietary system, eggs are used for both special occasions and everyday life. In ancient China, eggs were more likely to be used for the former than the latter. As *sine qua non* on special occasions, the value of eggs lay in both symbolic and nutritional purposes.

Currently, however, the economic achievement and advances in agricultural technology in Taiwan over the past few decades have permitted substantial dietary choice without much ecological and economic constraint. People no longer have to obtain protein or much of the strength-building food from feasts alone. The communicative and ritual functions of food, nevertheless, remain significant aspects of Chinese foodways. However, under the impact of the health promotion movement, foods are increasingly consumed (or not consumed) for the sake of health maintenance, and not simply for survival.

Today, eggs are consumed as an everyday-life food rather than as a special-occasion food by most people. However, on special occasions, eggs are particularly valued for symbolic reasons, and less considered as a major source of basic nourishment. Along with an increase in mortality due to chronic and degenerative diseases, the status of the egg has decreased because of its cholesterol content, which is viewed as a dominant risk factor for cardiovascular diseases. The uncertainty and the multiple etiologies accompanying these new health problems have caused confusion in the ways people manage their daily health routines. A foodway which is as customary and universal as egg consumption has now become controversial and complicated. Understanding the mechanisms through which a specific dietary practice is constructed in contemporary health culture may shed new light on current research in health-related behavior.

STUDY DESIGN

This paper is one product of a comparative research project concerning perceptions of aging and self health-promoting behavior among elderly Chinese immigrants from Taiwan living in the USA and their counterparts still living on the island. Both groups resided in retirement communities. The stimulus for this paper came from distinctive perceptions these elderly

respondents held toward eggs, which they described over the course of this project. *Dan gu chun* (cholesterol) was the ‘dietary risk factor’ most often mentioned, and eggs were the most widely restricted food item among the respondents. Apparently, the information on cholesterol’s potentially dangerous effects on health has led to excessive concern and anxiety among those interviewed. The author therefore chose egg-eating as an example to understand current health promoting behaviors among this specific group of Chinese elderly.

The settings

Respondents were living in four public housing facilities for senior citizens, two in Taipei (Cypress and Evergreen) and two in Los Angeles (Golden Age and Angelus Plaza). Supported primarily by governments and/or non-profit organizations, all of them are located in urban or suburban areas. The services provided by each facility are basically the same, except that meal services (i.e., a central dining area) are provided only by the two Taipei centers.

The two Los Angeles communities are very different from each other both geographically and demographically. Angelus Plaza is located on the western edge of downtown Los Angeles and is very close to the city’s administrative and commercial centers. Its multicultural and multilingual population represents an outstanding feature. Approximately one-fourth of its residents are Asian; about 250 are Chinese with a majority being immigrants from Taiwan. Golden Age Village, on the other hand, is situated in a lower middle-class suburban neighborhood which has a considerable number of new Chinese immigrants; over 90% of the community’s residents are Chinese – predominantly Taiwanese immigrants.

Evergreen Village and Cypress Home were the first two retirement residential facilities built for senior citizens in Taipei. Evergreen Village (built along Mount Wuchi which is at a considerable distance from downtown Taipei) is geographically the most isolated amongst the four communities. It was primarily designed as a self-contained community. On the other hand, Cypress Home is situated in a commercial-residential neighborhood in a northern Taipei suburb. Although it is directly across from a housing complex for low-income citizens, it is a pleasant, clean and quiet environment situated on the edge of a major city.

Data collection

Data for the original study was collected in the period between December, 1990 and August, 1991. The study sample was selected on the basis of stratified sampling procedures. The final sample size was 203, with a response rate of 81.5%. Interviews lasted from a minimum of 45 minutes to a maximum of more than 4 hours, with an average of 75 minutes. In addition to using semi-structured questionnaires in face-to-face interviews for data collection, informal interviews were also conducted with staff members regarding the history and character of each home. Moreover, participant observation was also carried out occasionally in the visiting and dining areas, recreation centers, libraries, clinics, and other regular group activities.

The sample

The study sample included 89 individuals residing in Taipei (Taipei group) and 114 Chinese-American immigrants from Taiwan living in Los Angeles (LA group). Except for one woman who was born and brought up in Taiwan, all the remaining respondents were born in mainland China and migrated to Taiwan during the Chinese Communist takeover in 1948 and 1949. Table I presents a profile of the entire sample and a comparison of the two groups. Combined, the sample represents an upper middle-class group of a generation born 60 to 90 years ago.

The two study groups were similar in many ways. Both sexes were equally distributed as a result of stratified sampling procedures. More than 85% of the respondents were older than 70, with a mean age of 76. The average length of residence in the four retirement homes was found to be longer for the LA elders (6.7 years) than the Taipei elders (5 years); this was mainly due to the fact that the two homes in Los Angeles were established earlier.

Notably, the respondents had achieved a surprisingly high educational level when compared with the overall elderly population (age 65 and above) in Taiwan.² The majority of the sample (63.8%) had held either white collar, managerial or professional jobs. Less than one third (26.6%) of the respondents (all females) had not worked since marriage.

The respondents living in Taiwan tended to profess beliefs in Buddhism or Taoism, while Christianity was the predominant religion among the LA elderly. While the vast majority (96.5%) of LA elders had at least one kind of health insurance coverage, only 65.1% of the Taipei group had health insurance and 33.7% had no coverage whatsoever.

There's one aspect, however, that must be emphasized for these mainland-born Chinese: namely, their life-course experiences. They belong

TABLE I
Sociodemographic characteristics of two study groups

Characteristics	Los Angeles (n = 114) (%)	Taipei (n = 89) (%)	Total (n = 203) (%)
Sex			
Male	49.1	47.2	48.3
Female	50.9	52.8	51.7
Age (mean)	75.4	77.6	76.4
Education			
Junior high and lower	22.8	23.6	23.2
High school	31.6	42.7	36.5
College and higher	45.6	33.7	40.4
Mean years of education	12.6	11.7	12.2
Religion			
Catholic	7.9	12.4	9.9
Protestant	46.5	24.7	37.0
Buddhism/Taoism	14.9	25.8	19.9
None/Others	30.7	34.8	32.8
Marital status			
Living w/spouse	49.1	28.4	40.3
Not living w/spouse	9.7	5.7	8.0
Widowed	41.2	64.8	51.7
Major income source			
Government	92.1	1.1	52.2
Saving	1.8	10.1	5.4
Pension	1.8	44.9	20.7
Children	4.4	39.3	19.7
Others	—	4.5	2.0
Medical insurance			
One	10.5	58.4	31.5
Two	86.0	6.7	51.2
None	3.5	33.7	16.7
Pre-retirement occupation			
None	23.7	29.2	26.1
Professional/Managerial	61.4	61.8	61.5
Others	14.9	9.0	12.3
Years in retirement homes (mean)	5.7	4.0	5.0

to a generation which suffered from political upheavals and social turmoil throughout their young lives. Starting with the 1911 Republican Revolution and running through the May Fourth Movement, the Northern Expedition, the First United Front, the Sino-Japanese War, the Second United Front, and the 1948 Civil War, these men and women had survived radical change and much distress. Additionally, the LA group members have also experienced acculturation and adjustment to Western society. All of these harsh experiences, together with the dramatic transformation in the social and economic systems as well as in health care in Taiwan, are likely to have exerted strong influences on their health beliefs and practices.

FINDINGS

Changing status of eggs

Over the past few decades, many traditionally-valued food items such as eggs have been re-evaluated as higher-risk dietary elements. These transformations were markedly observable in the comments of many respondents, whose dietary opinions mirrored the experiences they had lived through during a special period of Chinese history. Mrs. Liu of Angelus Plaza³ stated:

When I was young and lived on the mainland, eggs used to be my favorites. At that time, there were always plenty of eggs for the whole family. However, after I retreated to Taiwan with the government, the situation changed considerably. Eggs were hardly available. Meanwhile, I gave birth to four children. They were always the first to eat eggs. I saved every egg I could get for them, whereas for myself eggs had become a luxury. However, things kept on changing. The last few years while I was still in Taiwan, I learned from the newspapers and my doctors that egg yolk had something to do with hypertension and heart disease. I remember that during the first year after I immigrated to this country when my husband and I were still staying with our second son, I especially restricted my husband's and my son's consumption of eggs. Even after we moved to this home, we still avoided eggs as best as we could.

Her narrative represents a common experience which is generally shared by these seniors, reflecting fluctuations in their personal life courses as a result of political and economic changes and, more importantly, the epidemiological transitions that have led to an increasing awareness of health risk factors. Many respondents lamented their predicament as: "When I was young, I could not afford to eat good things. Now that I can afford, I am warned not to."

Not only were they warned not to, as can be clearly seen in the following sections, but they were also controlled in their perceptions and behavior by the numerous and ever-changing health guidelines and norms.

TABLE II
Types of egg restriction practices among Chinese elderly

	Los Angeles (n = 114) n (%)	Taipei (n = 89) n (%)	Total (n = 203) n (%)
Egg-restrictive			
Total avoidance	1 (0.9)	—	1 (0.5)
Egg-white only (no yolk)	20 (17.5)	21 (23.6)	41 (20.1)
Limited yolk	8 (7.1)	—	8 (3.9)
Limited whole eggs	13 (11.4)	5 (4.5)	18 (8.8)
W/o regular types	24 (21.1)	15 (15.7)	39 (19.1)
Egg-nonrestrictive	48 (42.1)	47 (55.0)	95 (46.8)
Refused to respond	—	1 (1.1)	1 (0.5)

Profile of egg-consumption practices

The multifarious ways of consuming eggs observed in the four homes signified the ambivalent situation encountered by these elderly residents in their daily practice of health maintenance. Basically, as presented in Table II, two major types of egg-consumption could be distinguished: egg-restrictiveness and egg-nonrestrictiveness. Egg-restrictiveness refers to self-imposed discipline of egg-consumption, regardless of how much and in what way the eggs were really consumed, as long as the elderly felt that they had restrained themselves from eating excessive eggs. Otherwise, it would be termed egg-nonrestrictive. The distinction was made on the basis of self-identification, and not on nutritional guidelines. Hence, there were egg-restrictive persons who consumed one egg per day in contrast to egg-nonrestrictive persons who might consume only two eggs per week.

It was observed that slightly more than half (53.2%) of the total respondents abided by certain restrictions, with more in the case of LA (58.0%) than the Taipei group (45.0%). The most restrictive and also the smallest group was that of the 'no-egg people'. One resident of the LA group claimed to have not eaten eggs for as long as 20 years – except as an ingredient in prepared foods. The next restrictive group was that of 'no-yolk people'. About one-fifth were eaters of egg whites only, who believed in absolute restriction against eating egg yolks. However, others felt that it was absurd to consume egg whites only, so their approach was to either reduce the number of whole eggs consumed (usually from one or two eggs per day to one or two per week) (8.8%) or limit their yolk consumption (whole egg white with part of the yolk) (3.9%). The remaining (19.1%)

of the egg-restrictive people were of the 'mixed' type, who consumed eggs without following any regular pattern. Overall, the LA elderly were found to be more restrictive than the Taipei group in the matter of egg consumption.

Two types of egg-nonrestrictive persons can be further identified: (1) those who maintained a stable pattern of consumption throughout their life courses and (2) those who used to be egg-restrictive but had not adhered to any restrictions for some time. It is worth noting that although some elders claimed that they "ate as much as they liked," the regular amount consumed by them was relatively moderate or even small (less than or equal to one egg per day). Some, however, rarely ate eggs simply because they didn't like them – a question of food preference rather than health consideration.

Furthermore, egg restriction extended from chicken eggs to the eggs of other species, such as crab or shrimp spawn. A number of respondents had opinions similar to this one: "Many people avoid seafood because of the amount of cholesterol that it may contain. As a matter of fact, as long as one can avoid eating the eggs, one can continue to enjoy crab and shrimp without taking in too much cholesterol. The problem is not the meat itself, but rather it is the eggs." For most of the respondents, the egg is only one of the many high-cholesterol foods that have been excluded from their daily dietary list. The other high-cholesterol food most frequently mentioned were non-fish seafoods and animal organs. In the case of eggs, it is somewhat easier to distinguish between the evil constituent (egg yolk) and the good part (egg white). Unlike eggs, the risks involved in consuming the other types of food are not easily mitigated, so in the minds of many, they must be entirely avoided.

Some of these elderly residents were aware of an even more complicated theory of cholesterol – the so-called 'good' and 'bad' cholesterol. Several of them complained that while they knew that good cholesterol was necessary for good health, they did not however know its dietary sources. For example, do egg yolks contain bad cholesterol, good cholesterol, or both?

Despite all of this egg-related uncertainty, the residents still considered eggs to be a valuable food item. But what could be done with such 'good things' as eggs or egg yolks without having any regret? As frugal as they were, they believed that, "One person's poison can be another's medicine," and therefore saved the yolks for other purposes. For example, one elderly woman proudly showed her balcony plants and said, "I take care of them everyday with water to which an egg yolk is added. Look how strong they are! This is the only way I can think of to fully utilize the valuable yolk."

Her special use of egg yolks was not uncommon. Other residents saved the unwanted yolks to feed animals. Mrs. Dong from Angelus Plaza is a good example: "I usually spend one afternoon at the beach or at the park during weekends. Every time, I give all the wild birds or doves some special food – the powder of boiled egg yolks mixed with small pieces of bread. I think they enjoy it very much." Others saved their uneaten egg yolks for visiting grandchildren. They believed that a child's metabolism differed from their own, hence the children would not suffer from eating egg yolks. To these grandparents, eggs were still a food to be associated with health and good fortune.

Shaping egg-eating behavior in retirement homes

Most of the elderly residents who practiced egg-restriction indicated that their egg consumption patterns had changed during their late 1950s or early 1960s. Various personal or situational factors could initiate a change in a person's egg-eating habits. For example, some 6% of the egg-restrictive persons reduced their egg consumption simply because of their awareness that their old age rendered them members of a 'high-risk' population. About 18.7% of the egg-restrictive persons avoided eating eggs due to deterioration of health, such as suffering from chronic diseases like heart disease, hypertension or diabetes, or because they were alarmed by elevated serum cholesterol levels and arteriosclerosis. There were also those who refrained from eating eggs (especially yolks) because of diseases suffered by other family members. Yet most of the elderly simply practised egg-restriction for the purpose of disease prevention.

Four driving forces played important roles in their decisions: health professionals, family members, mass media and peer groups. These forces functioned as sources of information and/or as enforcement.

Health professionals

The primary authority which affected health decisions made by these elderly was their physicians, or rather the 'family physicians', as they emphasized. The role played by the physicians in shaping health-promoting practices was clearly apparent and needed no further explanation. However, it should be noted that, mainly due to the differences in health insurance coverage, the more elderly members of the LA group consulted their physicians more often than the Taipei elderly, especially for routine checkups. The overall impression received from the interviews was that the LA respondents mentioned their physicians quite frequently. They also maintained frequent contacts with their health providers as compared to the Taipei elderly.

An even more impressive aspect of contact with physicians was also noticed among the elderly of the LA group. During the course of interviews, many LA elders showed the reports of their recent checkups, which mostly consisted of a printed computer output. They repeated whatever they had been told by their physicians, clearly indicating their problematic as well as normal items, and sometimes also wanted me to provide more information. Compared with the Taipei elderly, the LA elderly were found to be more knowledgeable in biomedical concepts. That is, they often used biomedical concepts in their health narratives, and applied terminology that was relatively complicated and professional.

The dramatic increase of Chinese immigrants in Los Angeles over the last few decades has resulted in a rapid growth of various health care services provided by Chinese people. This has greatly reduced the pressure created by cultural differences as well as the communication difficulties which most of these elderly Chinese would have to encounter while establishing contacts with health service providers. As a result, the overall situation in Los Angeles Chinese communities has greatly benefited these elderly immigrants in acquiring health information from their physicians without having to face much difficulty.

Family members

Another major source of authority is the respondents' offspring. Since most of their children and grandchildren had attained a higher educational level than themselves, a reverse consulting relationship – especially on health-related issues – between the old and the young has developed. These parents turned to their children for health-related information and advice. The educated younger offspring also usually carefully selected and purchased health products (e.g., food supplements, health foods, tonics, etc.) for their elders. Through giving gifts, providing advice and monitoring their parents' health-related behavior such as consuming eggs, filial piety manifested itself regardless of physical distance. Despite being institutionalized, these elderly people could still enjoy the care and support of their offspring in their daily lives.

Although within a family network the authoritative information came mainly from the younger generations, the major gatekeepers of food consumption were the spouses of the elderly, usually wives of male residents. A Cypress Home resident explained: "My wife has not prepared any egg dishes since our son was warned about having a high level of serum cholesterol. After we moved here we still avoided eating eggs, even though now our son doesn't eat together with us." One woman living in Evergreen Village said: "We had avoided eating eggs since the time my

husband had a stroke. Now he has passed away and I have started eating eggs again, usually one egg in a day. I think it is all right, because I am quite healthy.” In the retirement homes, not only did these elderly women have responsibilities and power in the sphere of health-related routines and practices in the family, but they usually were also the major care-givers to their husbands in the event of illness episodes.

Mass media

Mass media and the press represent even more compelling forces. These elderly residents revealed that most of their understanding regarding the causal relationship between egg-eating and elevated serum cholesterol levels, arteriosclerosis and cardiovascular disease basically came from the mass media – especially newspapers. For both groups, watching TV and reading newspapers and books constituted their major leisure activities. Health-related information and commercials in the media appealed to them, as they were generally preoccupied with various health concerns. It would be concluded from the interviews that health information was more likely to be obtained from newspapers than from books. Approximately half of the respondents frequently read health information in the newspapers, with the LA group showing a much greater enthusiasm. Books, however, were less likely to be a source of health information. The other major sources of health information, TV and radio, were not included in this study since in Chinese American communities, health programs broadcast in Chinese are extremely limited.⁴

Unfortunately, most of the residents complained that media messages could not be followed easily, and that the health promotion messages which they read were either controversial or conflicting. Typical responses included:

- “Recently the newspaper said that eating egg yolks is safe. Who knows what they will say tomorrow?”
- “Too much uncertainty is involved.”
- “Whose advice should I take? Just two months ago the newspaper stated that eating yolks has nothing to do with heart disease and hypertension.”
- “To eat or not to eat? It is still a big question.”
- “Now-a-days the newspapers and the radio have started saying that egg yolk is good for the control of heart disease.”

Both confused by and tired of inconclusive findings, these respondents could not tolerate living in uncertainty, so they developed their own rules. A principle which some elderly held to was: “It is dangerous to believe

entirely whatever others (including newspapers) tell you.” One Evergreen resident who was well-educated and knowledgeable about health-related subjects contended:

I used to eat eggs every other day. Now they have started saying that eggs won't do any harm, so I eat one egg every day. The way I deal with the egg problem is that I never take what they [health professionals or scientists] say for granted. You better believe only half of what they tell you. As for the other half you have to rely on your own judgement.

Some respondents took the stand that, “To be conservative is better; at least there is no harm in doing so,” or “Never indulge yourself in good things.” Others behaved in conformity with the Chinese philosophy of moderation. Mr. Wang from Evergreen Village said:

Eggs have been our [his and his wife's] favorites all the time. Over the last forty to fifty years we've never changed our pattern of egg consumption – about one egg every day or every other day, and we never refuse to eat the yolk, as many other residents do. We know that the yolk contains very high cholesterol, but we believe that one egg per day is alright. Such a stable pattern of egg intake would not harm us, and I think that totally refraining from eggs or just eating the egg white is a kind of overreaction.

Still others gave all the warnings a cold shoulder, saying that they were not bothered by the contradictory information because scientific justification had never existed in this regard.

Peer groups

In the context of retirement homes, peer pressure constituted the most interesting aspect in shaping the elders' health-promoting behavior. These age-segregated settings have influenced the elderly residents' health consciousness and practices through a semi-institutionalized style of life. For example, Mrs. Cheng of Golden Age Village reported that several times while she was frying an egg she was scolded by visiting neighbors: “ ‘Just one egg, you know,’ but they shouted at me as if I had committed a crime,” she complained. Mrs. Ho, a resident of Angelus Plaza, also recalled:

I used to eat two eggs a day while I was in Taiwan. After I immigrated to the United States I gradually reduced my consumption from two to one egg per day. Particularly after moving to this home, eggs were hardly on my list. Can you imagine that Mrs. Huang who lives across the hall has not touched an egg yolk for twenty years? Her attitude has more or less affected me to a large extent.

A commonly-heard explanation for accepting egg restrictions was “Everyone is doing so,” or “They all say so.” Mr. Shang, an 81-year-old widower who had been staying at Golden Age for only two months, indicated:

Eggs used to be one of my favorites. But since I moved here I cannot help but listen to what they [the residents in this home] tell me. Well, after all, they are all nice people and

give me good advice. Besides, my children had already advised me many times that egg yolk is something that I should avoid. But I somehow feel uncomfortable eating just egg white without egg yolk. So I have simply reduced my egg consumption to only two whole eggs in a week.

Due to the communal meal services in the two Taipei homes, the more institutionalized and collective pattern of dietary practices of the Taipei elderly gave us an excellent opportunity to observe the impact of peer interaction on egg-eating in public settings. Once, while having breakfast with Evergreen Village residents in their dining room, I was impressed by the number of yolks that remained untouched. One resident explained: "Usually they provide eggs two or three times a week. If whole eggs are served, such as boiled eggs or tea eggs (eggs boiled in tea instead of water), most of us simply leave the yolk and eat only the egg white." In Cypress Home, where central meal services are also available, opinion regarding egg yolk consumption bewildered Mrs. Tseng, an illiterate 79-year-old resident. She said: "I love eggs very much, especially the yolks. I just don't understand why most of them refuse to eat the yolk. It is tasty and nutritious. So every time whole eggs are served, I always exchange my egg white with their unwanted yolks." Her conversation is included here not to suggest her ignorance but rather to point out the existence of a collective and pervasively negative attitude towards egg yolks within this home.

Monitoring the serum cholesterol level

Eggs have always been the first food item to be blamed in uncertain situations. The story of Mr. Wang – a very energetic 80-year-old resident of Golden Age – was quite representative:

For over fifty years, I used to have a cup of hot milk mixed with an egg for my breakfast. Last year, a routine checkup indicated that I had elevated serum cholesterol. I gave it a long thought and finally figured out that it must be the eggs that caused this problem. Since then I add only egg white to my milk.

Attributing elevated serum cholesterol levels to eating egg yolks was the most commonly observed line of reasoning among the respondents. However, even in cases where serum cholesterol levels were within a normal range, most of the elderly still adopted egg-eating restrictions.

As a result, 'egg-phobia' walked hand-in-hand with concerns about, and frequent monitoring of, serum cholesterol levels. Most respondents firmly believed in an immediate causal relationship between dietary cholesterol and serum cholesterol and its ill effects on health. Mrs. Shung, a well-educated 75-year-old widow in Golden Age Village, told me:

Last year I went to my son's house in Texas for Thanksgiving. He knew that lobster was my favorite food and invited me to a famous restaurant to enjoy the freshest and most tasty

lobster I've ever had in my life. I ate a lot that evening. The next morning when I woke up I felt very sick and I guessed that I must have had too much cholesterol released in my blood. Two days later, after I came back here, I immediately went to my physician and had a blood test. Just as I thought – my cholesterol level had increased by 10 points. During the next two weeks I adopted a vegetarian diet, and then had a blood test again. My cholesterol level had gone down to normal level.

Another Golden Age resident, Mr. Ku, reported having a similar kind of experience:

Last month I joined a tour to mainland China. For two weeks I indulged myself in luxury dishes such as Beijing duck, cherry chicken, and a variety of seafood dishes, with very little intake of vegetables and fruits. This kind of diet lasted for more than ten days, and I felt uncomfortable and was considerably worried. I knew that it would cause trouble. Just as I expected, my physician warned me that my serum cholesterol level had become elevated. In the following weeks I committed myself to a low-cholesterol diet, and eventually I had my cholesterol down to its normal level.

Mrs. Huang of Evergreen Village proudly related her experience:

It was three years ago that my doctor told me that my serum cholesterol level was higher than 300, which frightened me very much. From then on, I've never touched an egg yolk. Recently I had another checkup and was told that my serum cholesterol level had dropped to about 200. Nevertheless, I think that I should still adhere to a no-yolk diet.

These elderly people assessed their dietary needs according to clinical indicators – not only for serum cholesterol, but also for uric acid, blood pressure, and blood sugar. For them, strong flavors were no longer an important aspect in their diet; instead, an ideal diet was one which helped them to avoid life-threatening risks. Most of the no-yolk respondents took blood tests regularly to assure themselves that everything was under control – especially those LA residents who had complete health insurance coverage. Moreover, the LA respondents pointed out that in the USA, it is a common practice to provide patients with printed reports of all checkups, including blood tests. These reports, along with lists of nutritional contents of different types of food which these elderly people collected from books, newspapers, or other health education materials, served as guides in monitoring the clinical indicators. Test reports, health information gained from mass media, and advice from physicians or children were all translated into personal analyses of acceptable dietary items and eating habits.

DISCUSSION

Health information and at-risk behavior

The 'egg phobia' that was observed in the retirement communities reflects the 'epidemic of apprehension' described by Feinstein and Esdaile (1987) in the larger society. Many other researchers have addressed issues pertaining to overloading and diffusiveness of contemporary health information (Angell and Kassirer 1994; Lupton and Chapman 1995; Stoeckle 1984). As Becker (1993: 1) has indicated, "Health promotion has prematurely exhorted the public to undertake a large number of different behaviors." The word 'prematurely' was employed to describe the unknowns and contradictions which frequently arise in scientific research. In the case of egg yolk consumption, the problem is much greater than simply 'to eat or not to eat'; uncertainties are further complicated by the lack of an easy way to determine what exactly is 'appropriate.'

The elderly subjects of the present study responded to the large flow of health information and coped with the consequent anxiety – ranging from the most conservative (abstinence) to the most unrestrained (eating as much as one wants) manner in their own personal ways. However, the central health promotion research issue is not simply studying the typology and distribution of behavior patterns. Instead, our attention should be directed towards the cognitive, psychosocial and situational factors behind the behavior being investigated in order to explain why and how a particular piece of health information is processed and put into action.

For example, in this study one of the most oft-mentioned guidelines was the conventional health maintenance wisdom predominant in traditional Chinese culture – regularity and moderation. Likewise, 'everything in moderation' was also commonly expressed by lay people in Sydney as a strategy to cope with the conflicting advice in mass media concerning diet and heart disease (Lupton and Chapman 1995). It is obvious that moderation is a simple and universal rule of conduct. In Chinese culture, moderation is a golden rule for personal cultivation. The central importance of the Chinese concept of moderation lies in quality rather than quantity, and there is a strong connotation of individual morality suggested by this concept. Moderation literally implies a mid-way in its quantitative aspect, though it also passively suggests refraining from overindulgence. Though an old adage, commitment to moderation in one's lifestyle has currently become in vogue. However, from the lay point of view, what exactly constitutes a moderate amount of consumption still remains unclear.

Another concern is how the acquired health information is transformed into knowledge. For example, some respondents generalized the cholest-

terol hazard from chicken eggs to all eggs. The elimination of eggs from water animals assures safety and thus enables full enjoyment of these foods. However, it should be noted that these generalizations were largely made according to an individual's 'common sense'. This has been referred to by Young as an "actor's theoretical medical knowledge," through which a lay person organizes his own as well as other people's reports about objects and events to construct personal interpretive schemes and principled explanations (Young 1981: 379–380).

Adopting a moderate way of living and making generalizations are both significant components of lay reasoning which are related with cholesterol complex. Lay people can neither defend against nor ignore claims from professional communities. However, what they can do is to search for the meaning inherent in the information they are exposed to. The controversial relationship between foods and symptoms, as well as between dietary cholesterol and serum cholesterol, needs to be reconceptualized. Egg generalization resolves the question of 'what', while moderation resolves 'how much'. As generalizations were developed and moderation pursued, uncertainty diminished.

Yet the impact of the cholesterol debate is much greater than one might imagine. While 'egg phobia' was found to be pervasive, extreme opinions were also found, such as those quoted above from Mrs. Shung and Mr. Ku – both complained of health problems shortly after 'over-consuming' cholesterol-rich food while traveling. Their statements show the manner in which faith in health warnings can mediate and reinforce one's sensitivity, thereby conditioning somatic reactions. Clinical justifications are not important here, rather, greater significance is given to the manner in which concerns about cholesterol sensitized these respondents' bodily reactions. Here, a state of deviance was perceived by the actors; high serum cholesterol levels were not merely symptoms, but also indicators of misbehavior.

The extent to which "health promotion exhortation" (Becker 1987: 624) can control ways of thinking, living or feeling may be very strong. As the body of health information grows in volume and complexity, health promotion becomes not just a matter of acquiring information, but also an issue concerning the perception, integration and utilization of acquired information. Alonzo (1993) has suggested that this is vital to the 'at-risk role' described by Baric (1969). This concept is even more important while studying the elderly – given the fact that health is amongst their ultimate concerns in life and also that they usually have more time to be engrossed in health information and engage in health-promoting activities.

Life course and the health paradigm in transition

The ambivalence that these elderly Chinese hold for egg-eating reflects the change in Chinese nutritional wisdom in the process of modernization. As everyday-life foods, eggs were designated by these Chinese elderly as illness-causing food rather than health-promoting food. The transition in the status of eggs characterizes a life course in which living conditions shifted from deprived to prosperous. Even more importantly, it is a life course of drastic transformation in health ideology and health-related practices.

People of older generations are usually seen as having a particular set of attitudes and expectations which originates from particular historical experiences and which also affects their attitudes towards health and use of services. For example, in comparison with younger people, older generations have been aging along with the advances in medical technology and an explosive growth in biomedical knowledge. The elderly mainlanders in this study were even more vulnerable to this transition, because upon their migration to Taiwan they had to socialize themselves into the era of biomedical dominance (Lee 1982) in which Western medicine had rapidly developed as the predominant mode of health care delivery but traditional health beliefs and practices were still permeating the daily lives of lay people.

In the age of biomedical hegemony, risk identification and reduction have become central preoccupations, especially in the current wave of health promotion enthusiasm (Skolbekken 1995). Although the concept of risk factor and its quantitative indications were rather new ideas for the majority of the respondents, the egg example shows that the connotation of risk factor has generally been understood and accepted. The notion of 'cholesterol' was well recognized, and *dan gu chun* had become a common term in the daily lives of these elderly. But how did a modern, biomedical concept such as cholesterol become largely acceptable? What encouraged these elders to make a long-term, radical health choice such as rejecting a traditional food item?

Even in contemporary society, dietary management is still recognized by Chinese as a major strategy for maintaining health and treating illness (Koo 1987). The basic Chinese dietary principle is 'balance' – between hot and cold, yin and yang, and man and nature (Anderson and Anderson 1975). This paradigm stresses dynamics, relativism, and situationalism. In contrast, Western health promotion emphasizes absolutism and specificity: once a risk is identified, it should be avoided and/or eliminated as much as possible. The concept of risk factor has thus become a dominant mode of reasoning in illness etiology and health promotion.

The wide acceptance of and compliance with the risk paradigm reflects the omnipresence of Western reductionistic thinking in academic communities and popular culture. Whereas the paradigm of risk factors is a powerful motivator, the penetration of the idea of risk in daily dietary practices may have its dangers. In contrast to the traditional Chinese concept of ‘holistic health maintenance’, the pursuit of good health in the age of health promotion fads has – for elderly Chinese – become fragmented. They were over-concerned about the risk, i.e., cholesterol, but did not pay equal attention to, or virtually ignored, the protein contained in the eggs. Intriguingly enough, as the question of egg-eating was raised, *dan gu chun* slipped out of their lips very often but none of them mentioned protein (*dan bai zhi*) in any of their conversations. Although most of them stressed the value of eggs, considering them to be a good food item in general, they never mentioned specifically the *dan bai zhi* present in the eggs. This is not because the concept of protein was absent in their storehouse of dietary common sense, but rather that in their cognitive system the link between *dan gu chun* and eggs was more obvious, intimate and critical than that between *dan bai zhi* and eggs. If they require protein they would rather pick up food in which protein and cholesterol (or other harmful substances) are not co-existent. Therefore, while the risk paradigm is applied in the extreme, a food item is evaluated not on the basis of its overall quality but on the specific substances (risk factors) it contains.

The biomedicalization of health promotion

Several questions thus arise: Has the Chinese way of maintaining health shifted from an equilibrium paradigm to a risk factor paradigm? If yes, then how? Why are these elderly Chinese ready to make the shift? In what ways does this change manifest itself?

Being the main theme of current health promotion advocacy, the risk paradigm conveys the core framework of inference derived from biomedical science. The present study has shown that the concepts and vocabulary of modern medical advice have been internalized by these Chinese elderly and have become a style of thinking and acting. The biomedical paradigm had been passed on to them and their health paradigm reformulated through the four forces – health professionals, younger generation, mass media and peer groups.

The profound impact of the process of biomedicalization of health promotion was also manifested in their eagerness to detect early the accumulated risk in one’s body. To ensure a safe level of egg intake and to ‘visualize’ the effects of dietary cholesterol, a biomedical technology – the blood test – has been developed to solve the problem. However, even

today the traditional Chinese views concerning blood hold great power for elderly Chinese. In this view, blood contains the body's vital energy, and is the major source and symbol of life. Many believe that any loss of blood leads to a loss of strength which can only be recovered through long-term nourishment. This is seen as being especially true for older people since their constitutions are relatively cold and weak (that is, deficient in yang). Some respondents mentioned that they avoided physical checkups because they were unwilling to allow their blood to be taken from their bodies, but the majority relied on these tests for health assessment regardless of their personal beliefs concerning blood.

Since blood tests are such an important medical technique, the status of blood in the current health promotion scenario has become increasingly elevated. Blood is currently a unique data base for recording the mechanism of various activities within the microcosm of the human body. Accordingly, blood is now increasingly viewed as a useful purveyor of messages for assessing personal health – with the implication that individuals should behave in accordance with blood test results. From the above examples, one can see how serum cholesterol test results act as guides for anxious seniors. These seniors are increasingly controlled by this clinical indicator (and by other indicators such as blood pressure, weight, etc.), both perceptually and behaviorally. From the blood test results, the health status is monitored and reassured and the uncertainty relieved.

As addressed earlier, biomedicalization is a process which links closely with their life course. Moreover, through migration and the process of acculturation, it was the group of elderly in LA who were exposed to the trend of biomedicalization earlier, upon whom the impact was also greater. Compared to their Taipei counterparts, the LA seniors were more knowledgeable of and familiar with medical common sense and were more enthusiastic about health-related information and technology. Yet in general it should be noted that health beliefs and behaviors of the elderly cohort included in this study may be atypical, since the elders in the study constitute a comparatively elite group within their generation. They are probably 'early adopters' of health innovations compared to their ordinary counterparts.

A FEW FINAL COMMENTS

Anthropological studies on the way people respond to health conditions have focused largely on illness rather than health behaviors. The anthropology of health-promoting behavior is an area that has not received serious attention even in the current medical anthropology literature. Whereas

investigations into everyday health activities may enrich our phenomenological understanding of the impacts of current health ideology, health promotion studies usually carry with them a strong normative preoccupation in which behavior is judged by 'scientific criteria', and is accordingly classified into right and wrong or good and bad. Health promotion has increasingly emerged as a moral issue in which health is a moral discourse and the body a site for moral action (Conrad 1994). In this study, however, the attempt has been to show that health behavior is actually a combined product of beliefs, motives and social interactions. Faced with daily health choices, the Chinese elderly in this study struggled between science and faith, pleasure and health, and personal decision-making and peer pressure.

Despite traditionally being the core of medical anthropological studies, lay perspectives of health and illness-related belief and practices has attracted academic attention in socio-medical science only very recently (Brown 1990; Davison et al. 1991; Popay and Williams 1996). Lay understanding of what to eat and how to eat in response to professional knowledge is perhaps the most fascinating area to be examined. As Mennell and his associates have indicated, change in the perceived relationship between food and health falls within the framework of "social movements devoted to 'alternative' or 'counter-cultural' world views and corresponding styles of life" (Mennell et al. 1992: 45). They have further concluded that "An ethnonutritional stance could valuably investigate the manner in which modern dietary advice is incorporated, modified or ignored in belief systems of different segments of industrialized population" (Mennell et al. 1992: 46). The health behavior patterns, including dietary practices, for Chinese of all age groups are in transition due to rapid Westernization. Current health promotion (both ideologically and strategically) is by and large a Western phenomenon. It would be interesting to focus further research on the way this new health paradigm is being disseminated, and how other cultures are responding to it.

ACKNOWLEDGEMENTS

Support for this study was partially provided by the Chin-Lin Medical Foundation at the Chin-Lin Geriatrics Research Center, Taipei, Taiwan, Republic of China, through grant No. CI-79-49. Correspondence may be addressed to Chih-yin Lew-Ting at the College of Public Health, National Taiwan University, No. 1, the 1st section, Jen-Ai Rd. Rm 1520, Taipei, Taiwan, Republic of China.

NOTES

1. Doing the month (*zuo yue zi*) is a traditional practice in obstetrical care in China and is still common in contemporary Taiwan. According to this tradition, after giving birth, a woman should be confined to home for a full month for recuperation. During this period of time, she has to adhere to a regimen of “do’s and don’ts” in order to ensure a full convalescence from childbirth. The affected activities include dietary choices, personal hygiene, physical activities and social interactions (see, for example, Pillsbury 1978). Chinese believe that women lose heat and vital energy (*qi*) during childbirth. To strengthen *qi* and to restore health, “hot foods” – usually foods that are rich in protein – are administered (Anderson and Anderson 1975).
2. In 1990, only 6.0% and 1.8% of the total elderly population in Taiwan had educational levels of high school and college, respectively.
3. All names of the elderly subjects in this study have been changed, and every attempt has been made to preserve their anonymity.
4. This may partly explain why more of the LA seniors (56.6% and 30%) as compared to the Taipei seniors (37.1% and 25.9%) stated that they frequently received health information from newspapers and books, respectively.

REFERENCES

- Alonzo, Angelo A.
1993 Health Behavior: Issues, Contradictions and Dilemmas. *Social Science and Medicine* 7(8): 1019–1034.
- Anderson, Eugene N.
1988 *The Food of China*. New Haven: Yale University Press.
- Anderson E. N. Jr. and Marja L. Anderson
1975 Folk Dietetics in two Chinese Communities, and Its Implications for the Study of Chinese Medicine. *In* *Medicine in Chinese Culture*. A. Kleinman, P. Kunstadter, E. R. Alexander, and J. L. Gale, eds., pp. 356–376. Washington, D.C.: National Institutes of Health DHEW Publ. No. (NIH)75-653.
- 1977 Modern China: South. *In* *Food in Chinese Culture – Anthropological and Historical Perspectives*. K. C. Chang, ed., pp. 317–382. New Haven: Yale University Press.
- Angell, Marcia and Jerome P. Kassirer
1994 Clinical Research – What Should the Public Believe? *The New England Journal of Medicine* 331(31): 189–190.
- Baric, L.
1969 Recognition of the ‘At Risk’ Role: A Means to Influence Health Behavior. *International Journal of Health Education* 12: 24–34.
- Becker, Marshall H.
1993 A Medical Sociologist Looks at Health Promotion. *Journal of Health and Social Behavior* 34: 1–6.
- 1987 The Cholesterol Saga: Whither Health Promotion. *Annals of Internal Medicine* 106(4): 623–626.
- Brown, Phil
1990 Popular Epidemiology: Community Response to Toxic Waste-Induced Disease. *In* *The Sociology of Health and Illness – Critical Perspectives*. P. Conrad and R. Kern, eds., New York: St. Martin’s Press.

- Chang, Kwang-chih
 1977 Introduction. *In Food in Chinese Culture – Anthropological and Historical Perspectives*. K. C. Chang, ed., pp. 1–22. New Haven: Yale University Press.
- Chen, James Y. P.
 1973 Chinese Health Foods and Herb Tonics. *American Journal of Chinese Medicine* 1(2): 225–247.
- Cleary, Paul
 1986 New Directions in Illness Behavior research. *In Illness Behavior – A Multidisciplinary Model*. S. McHugh and M. Vallis, eds. New York: Plenum Press.
- Conrad, Peter
 1994 Wellness as Virtue: Morality and the Pursuit of Health. *Culture, Medicine and Psychiatry* 18(3): 385–401.
- Crawford, Robert
 1980 Healthism and the Medicalization of Everyday Life. *International Journal of Health Services* 10: 365–388.
- Davison, C., G. D. Smith and S. Frankel
 1991 Lay Epidemiology and the Prevention Paradox: The Implications of Coronary Candidacy for Health Education. *Sociology of Health & Illness* 13(1): 1–19.
- Eberhard, Wolfram
 1986 *A Dictionary of Chinese Symbols: Hidden Symbols in Chinese Life and Thought*. London: Routledge & Kegan Paul.
- Feinstein, Alvan R and John M. Esdaile
 1987 Incidence, Prevalence, and Evidence – Scientific Problems in Epidemiologic Statistics for the Occurrence of Cancer. *American Journal of Medicine* 82: 113–123.
- Gifford, Sandra M.
 1986 The Meaning of Lumps: A Case Study of the Ambiguities of Risk. *In Anthropology and Epidemiology*. Craig R. Janes et al. eds. Dordrecht/Boston: D. Reidel.
- Goldstein, Michael S.
 1992 *The Health Movement: Promoting Fitness in America*. New York: Maxwell Macmillan.
- Ho, Suzanne and S. Y. Chan
 1985 Dietary Beliefs in Health and Illness Among a Hong Kong Community. *Social Science and Medicine* 20(3): 223–230.
- Hsu, Vera Y. N. and Francis L. K. Hsu
 1977 Modern China: North. *In Food in Chinese Culture – Anthropological and Historical Perspectives*. K. C. Chang ed., pp. 297–382. New Haven: Yale University Press.
- Illich, Ivan
 1975 *Medical Nemesis: The Expropriation of Health*. New York: Pantheon.
- Koo, Linda C.
 1984 The Use of Food to Treat and Prevent Disease in Chinese Culture. *Social Science and Medicine* 18: 757–766.
 1987 Concepts of Disease Causation, Treatment and Prevention Among Hong Kong Chinese: Diversity and Eclecticism. *Social Science and Medicine* 25(4): 405–417.
- Lee, Rance P. L.
 1982 Comparative Studies of Health Care Systems. *Social Science and Medicine* 16(6): 629–642.

- Lock, M. and N. Scheper-Hughes
1990 A Critical-Interpretive Approach in Medical Anthropology: Rituals and Routines of Discipline and Dissent. *In* Medical Anthropology – Contemporary Theory and Method. Thomas M. Johnson and Carolyn F. Sargent eds., pp. 45–72. New York: Praeger.
- Lupton, Deborah and Simon Chapman
1995 'A Healthy Lifestyle Might be the Death of You': Discourses on Diet, Cholesterol Control and Heart Disease in the Press and Among the Lay Public. *Sociology of Health & Illness* 17(4): 477–494.
- Mennell, S., A. Murcott, and A. H. van Otterloo
1992 *The Sociology of Food: Eating, Diet and Culture*. Newbury Park: Sage.
- Pillsbury, Barbara L. K.
1978 "Doing the Month": Confinement and Convalescence of Chinese Women after Childbirth. *Social Science and Medicine* 12: 11–22.
- Popay, Jennie and Gareth Williams
1996 Public Health Research and Lay Knowledge. *Social Science and Medicine* 42(5): 759–768.
- Skolbekken, John-Arne
1995 The Risk Epidemic in Medical Journals. *Social Science and Medicine* 40(3): 291–305.
- Stoeckle, John D.
1984 Medical Advice Books: The Search for the Healthy Body. *Social Science and Medicine* 18(9): 707–712.
- Young, Allan
1981 The Creation of Medical Knowledge: Some Problems in Interpretation. *Social Science and Medicine* 15B: 379–386.

Chih-Yin Lew-Ting
College of Public Health, National Taiwan University