An exploration of oral health beliefs and attitudes of Chinese in West Yorkshire: a qualitative investigation

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Abstract

This qualitative study explores oral health beliefs and attitudes among Chinese resident in West Yorkshire using six focus groups differentiated by age and gender. Focus group discussions took place in community settings led by trained Chinese facilitators. All groups believed that they were susceptible to dental disease, and that bleeding gums and total tooth loss were ‘normal’; apart from the elderly, tooth loss was seen as undesirable. The elderly and adult groups believed in traditional remedies and claimed that preventive oral health measures were ineffective. These groups lacked faith in dentists, and for them cost, language difficulties and lack of awareness were the main reported barriers to accessing dental services. Traditional Chinese oral health beliefs remain influential for the elderly and adult UK Chinese. In contrast, teenagers thought that toothbrushing and sugar restriction would help to prevent dental diseases. The appropriateness of the focus group and interview methods for exploring oral health beliefs for the Chinese are discussed, as are implications of the reported intergenerational differences for oral health promotion strategy in the UK.

Introduction

Each culture has its own system of health beliefs (Helman, 1990), a collection of beliefs, perceptions and ideas about health and illness, which underpin health-related behaviours. An understanding of relevant health belief systems is crucial in developing culturally sensitive health promotion programmes (Lee et al., 1993; Brown and Williams, 1994).

Traditional Chinese health beliefs adopt an holistic or macrocosmic view emphasizing the importance of environmental factors in increasing risk of disease (Fuller and Toon, 1988). These factors influence the balance of body humour, yin and yang. Yin and yang are two opposite but complementary forces which, together with qi (vital energy), control the universe and explain the relationship between people and their surroundings. Imbalance in these two forces, or in qi, results in illness. In order to restore the balance, traditional remedial practices may be needed. For example, excess ‘hot’ energy can be counterbalanced by cooling herbal tea. These beliefs are deeply ingrained among the Chinese, and have been found to be unchanged following migration to the US (Anderson, 1987; Chau, 1990), UK (Chan, 1991) and Singapore (Quah, 1985).

In the 1984 Hong Kong Adult Oral Health Survey (Lind et al, 1987), in which 1239 Hong Kong Chinese were interviewed, the majority believed that they were susceptible to dental disease. Although the importance of dental health was acknowledged, many believed that ‘they could do little to prevent it’ and that ‘old age’ was a major cause of tooth loss. These beliefs have been
widely reported among the Chinese worldwide over the last two decades. In the US, Kiyak (Kiyak, 1981) found that significantly more Pacific-Asian adults, mainly Chinese, than Caucasians believed that old age was the major cause of tooth loss. In Taiwan, a survey of 288 Chinese adults reported that tooth loss was considered to be a natural fate of ageing, and dental and periodontal problems were merely a ‘symptom of pain’, not a disease entity (Hou et al., 1989). Similarly, Esa et al. (Esa et al., 1992) found that 57% of 328 Chinese antenatal mothers in Kuala Lumpur did not think that they could keep their teeth for life, while 40% believed that tooth decay was hereditary and not preventable. Traditional Chinese beliefs and oral health attitudes were found to correlate inversely with preventive dental behaviour and with knowledge among the middle-aged and elderly in Hong Kong (Lim et al., 1994); and a low level of dental awareness and symptomatic dental visiting behaviour among these age groups have been reported for the Chinese in both Hong Kong (Kwan et al., 1991; Lo and Schwarz, 1994) and the UK (Kwan et al., 1991).

A recent UK study investigated oral health beliefs, attitudes and reported behaviours among 156 Chinese people in North East England (Kwan and Williams, 1999). The majority, regardless of age and gender, believed that it was natural for people to lose all their teeth in old age, although 44% expressed confidence in keeping their own teeth for life; however, marked differences were found between generations, with elderly people being the most pessimistic. While the majority considered themselves to be susceptible to dental disease, only half thought that it was preventable. Elderly people were also found to have fatalistic attitudes towards oral health.

While these surveys highlight the beliefs held by Chinese, they fail to capture the full meaning and reasoning behind these beliefs, possibly owing to the highly structured questionnaire design. A more in-depth qualitative methodology may be more appropriate to the investigation of oral health beliefs (Nettleton, 1986). The opportunity for group interaction and probing from the facilitator in a focus group discussion may circumvent the inherent weakness of a questionnaire, allowing issues to be discussed in greater depth without introducing procedural reactivity, a bias involving the respondents withdrawing from situations affecting the ways in which they normally behave. The use of qualitative methodology is uncommon in dental research, perhaps reflecting the roots of dentistry in the biological sciences.

Despite a 13-fold increase in the UK Chinese population between the 1951 and 1991 Censuses (Teague, 1993), there has been no in-depth exploration of oral health beliefs among Chinese residents in the UK documented to date. The present qualitative study explores oral health beliefs and attitudes among Chinese in West Yorkshire, part of a larger investigation into oral health beliefs, attitudes and reported behaviour among Chinese in North East England (Kwan, 1996).

**Method**

Qualitative data were collected using focus groups. Six groups, each comprising five or six members, were selected according to age and gender. The three age categories were teenager (13–17 years), adult (30–50 years) and the elderly (60–80 years). Teenage subjects were recruited from a UK mainstream High School and a Chinese Language School, both in Leeds. The adults were recruited from parents who took their children to the Chinese School or adults who attended Community groups at the School. Members of the local Chinese Luncheon Clubs, all retired, formed the elderly groups. Participants were invited to take part on a voluntary basis. All potential subjects were approached and asked, in Cantonese, to participate in a discussion that would contribute to the development of health promotional materials for Chinese people in the UK. Investigation of oral health beliefs and attitudes were not mentioned specifically.

Focus group discussions took place in community settings, where the participants were comfortable: Chinese Language School for the female teenage group, mainstream local High
School for the male teenage group, Leeds Chinese Women’s Group in the Chinese school, the adult male group in the Chinese school and Chinese Elderly Luncheon Clubs in Leeds for both elderly groups. Each session was led by a Chinese facilitator, with matched ascribed characteristics by age and gender wherever possible, with whom the group could identify. Although elderly facilitators were not available, those used for the elderly groups were community workers well known and regularly consulted by members of the elderly community in West Yorkshire. Training in conducting focus group discussions was given to each facilitator by the first author and lasted approximately 2 h. It was structured round three themes: how to develop group rapport, how to maintain group dynamics and how to facilitate discussions within the framework of the protocol.

The discussion protocol was developed from the questionnaire in the 1984 Hong Kong Adult Oral Health Survey, and pre-tested with the facilitators and a separate sample of Chinese. The protocol included questions regarding perceived susceptibility, severity and preventability of dental disease, and attitudes towards dental care. Each area was initiated with reference to tooth loss, but subjects were encouraged to explore oral health-related beliefs and attitudes in general. Participants were encouraged to set their own priorities and to express their view fully, allowing pertinent issues such as normative cultural pressure to emerge through ‘normal’ conversation.

Prior to the focus group discussion, participants’ age, gender, place of birth, occupation and educational levels were determined. Participants were also asked to assess their own ability in spoken English as ‘none’, ‘poor’ or ‘good’. Each focus group discussion lasted approximately 1 h. Sessions were conducted in Cantonese with Hakka for the adult and elderly groups, and English and Cantonese were used in the teenage groups. All discussions were tape recorded and later transcribed in English for content analysis. Data were grouped into the following categories: perceived susceptibility, seriousness, self efficacy, and benefits and barriers of dental care.

Results

All those approached accepted the invitation to participate in the study. The characteristics of each group are presented in Table I. Participants who were not UK born had been in the UK for 10 or more years.

Oral health beliefs

Perceived susceptibility

Prompter questions: Do you think it is natural for people to lose all their teeth as they get older? Do you think you will be able to keep your teeth for life?

All six groups thought that ‘it is natural to lose all the teeth when you get old’. The group of teenage boys estimated that this would occur at about 60–70 years of age. They expressed doubt in their own ability to keep their teeth for life. All groups felt that dental problems were inevitable and that people, whether young or old, were susceptible to tooth loss.

It was evident that concepts of dental disease mainly focused on dental decay, perceived as ‘a part of life’. Periodontal diseases and oral mucosal disorders were not always considered to be dental disease. For example, among the adult and elderly groups, gum bleeding was considered to be normal or due to an ‘imbalance of body humour’.

Seriousness

Prompter question: Is losing teeth a serious matter?

Apart from the elderly groups, everyone thought that losing teeth was a serious matter as it would affect appearance, and ability to eat and speak. The process of tooth loss was considered to be unpleasant and painful; having no teeth could be very inconvenient and eating with dentures might lead to indigestion. Some believed that having a full set of teeth was a sign of honesty and decency, as there is a Chinese saying that ‘if you lie, you will lose a molar’ (male adult, aged 47 years).

However, one man from the adult group identified teeth with problems and perceived tooth loss as an opportunity to avoid pain, ‘no teeth, no more toothache’ (a 49-year-old take-away owner). The
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Table I. Characteristics of each focus group

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>Age (years)</th>
<th>Education levels</th>
<th>Occupational grouping</th>
<th>Place of birth</th>
<th>English abilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teenage female</td>
<td>5</td>
<td>14–17</td>
<td>secondary</td>
<td>catering (family)</td>
<td>UK</td>
<td>good</td>
</tr>
<tr>
<td>Teenage male</td>
<td>5</td>
<td>13–17</td>
<td>secondary</td>
<td>catering (family)</td>
<td>four outside UK</td>
<td>good</td>
</tr>
<tr>
<td>Chinese female adult</td>
<td>6</td>
<td>30–45</td>
<td>primary to secondary</td>
<td>four housewives</td>
<td>one UK</td>
<td>poor to good</td>
</tr>
<tr>
<td>Chinese male adult</td>
<td>5</td>
<td>40–50</td>
<td>primary to secondary</td>
<td>take-away business</td>
<td>outside UK</td>
<td>poor to good</td>
</tr>
<tr>
<td>Chinese female elderly</td>
<td>6</td>
<td>63–76</td>
<td>primary</td>
<td>retired</td>
<td>outside UK</td>
<td>none</td>
</tr>
<tr>
<td>Chinese male elderly</td>
<td>6</td>
<td>60–80</td>
<td>primary</td>
<td>retired</td>
<td>outside UK</td>
<td>none to poor</td>
</tr>
</tbody>
</table>

The majority of elderly people held a cultural belief that it was best to lose all teeth as ‘having teeth in old age would eat away children’s fortune, bringing bad luck to the family’.

A baby born with teeth was seen as a sign of bad luck (female adult and female elderly groups), indicating either that the infant has been cursed by devils or that it was retribution for something evil that the family had done.

Self efficacy
Prompter question: *Is there anything you can do to keep your teeth for life?*

Most of the adult and elderly group members believed that nothing could prevent tooth loss, although they had been cleaning their teeth over many years. However, it might be possible to delay it.

You can only keep them longer...but you can’t stop them from coming out. (Female adult group)

Women also believed that tooth loss was caused by frequent child birth. It was doubtful whether they could do anything about it because:

...you certainly can’t stop the baby from taking the calcium from you. (Female adult group)

Among the elderly and adult groups, many resorted to traditional remedies (e.g. ‘White Flower Oil’, ‘Melon Cream’ and herbal medicine) for dental problems. They did not believe that dental advice and treatment could prevent dental disease, and claimed that measures taken to prevent dental disease in the past had not proved effective.

In contrast, teenagers were more positive. While they believed that people might have dental problems beyond their control (e.g. ‘born with bad teeth’ or ‘with crooked teeth’), brushing teeth every day and cutting down on sweets was perceived as an adequate preventive regime. Teenagers also noted that a mother’s behaviour would affect her children’s teeth, e.g. if ‘mums stuff sugary food, sweets, blackcurrant juice, etc., into their babies mouths and turn their teeth black’ (teenage girl, aged 16 years).

Benefits versus ‘costs’/barriers of dental care

Regular check-ups were not generally considered important among adults and the elderly. They were costly and unnecessary. Prolonged bleeding was also considered a problem because people might be giving up vital energy, *qi*, which would weaken the body. The prospect of bleeding, therefore, might have deterred some Chinese from going to the dentist (adult and elderly groups).
The concept of a ‘blood tooth’, a belief found in some elderly members, may be another deterrent. This belief stemmed from their childhood, when a dentist refused to extract a particular tooth which was diagnosed as a ‘blood tooth’. If the patient had this tooth out, s/he would bleed to death. Certain times of day were not considered suitable for dental treatment, such as soon after eating, otherwise non-stop bleeding might result. ‘The most suitable time for an extraction will be nine o’clock in the morning before food’ (elderly female group).

Others claimed that they ‘hate fillings’, although they believed that fillings ‘can help to keep teeth’. Some claimed that they had not been to the dentist since they moved to the UK up to 30 years previously. Dental visits occurred more often prior to migration because they had not needed to travel a long way to see a Chinese dentist, whom they preferred.

In contrast, teenagers claimed that they were very happy with their dentists. They had faith in them, and trusted their advice and care. Oral hygiene was seen as a necessity whether teeth were natural or artificial.

...even if you have false teeth, you still have to clean them. (Teenage female group)

Self-care prevention was considered to be restrictive and very time consuming:

...you have to cut down on sweets and all that. (Male adult group)

Cost, language and communication difficulties, uncertainty about types of treatment available, and quality of care formed the barriers to dental visiting. These factors combined with a natural reserve and fear of embarrassment, together with a positive ability to seek alternative remedies, discouraged visits to the dentist. It was considered embarrassing if respondents were not sure whether they could afford it. They might ‘lose face’.

Participants were also worried about any misunderstanding and conflicts which might arise during a dental visit. As a consequence of the language barrier as well as cultural politeness, they were too embarrassed to question. Going to the dentist was perceived as a painful experience for them, both financially and physically, and often led to the conclusion that it was better to avoid the situation.

Such barriers also caused problems in prosthetic treatment. If newly constructed dentures were uncomfortable, respondents claimed that they would rather not wear them, since they were too ‘embarrassed’ to go back to have them adjusted and felt unable to explain what was wrong anyway. Consequently, they did not wish to bother the dentist, being afraid of wasting his/her time, upsetting him/her and becoming an ‘unpopular patient’. It was apparent that some respondents failed to realize that patients were entitled to return for denture adjustment in the UK.

Discussion

Focus group discussion employed in the present study allowed an in-depth investigation of values and beliefs (Kitzinger, 1994). All discussions were conducted in languages of the participants' choice and took place in community settings where social activities were already in progress; and the group facilitators were members of the Chinese community. This helped to minimize misunderstanding, potential bias and 'artificial response' (Hammersley, 1979). The separation of the focus groups by age and gender avoided the complications arising from differences in health beliefs as reported in previous studies (Kiyak and Miller, 1982; Quah, 1985). In addition, precedence of age or gender in group discussion was averted.

Given the small samples, participants recruited in this study may not be typical of the Chinese population in North East England, far less elsewhere. In particular, the recruitment of the adult groups attending a Chinese Language School may have resulted in more traditional beliefs and attitudes being associated with these groups. However, based on the separate survey of 156 Chinese (Kwan and Williams, 1999), focus group members appeared to be typical of the Chinese community in the region in terms of demographic
characteristics as well as oral health beliefs and attitudes. In addition, the level of education attained reflected that reported in the 1991 Census for the Chinese community in the UK (Cheng, 1996) and English ability that of 67 mothers of young children in West Yorkshire (Kwan et al., 1989).

The present study has explored oral health beliefs in a sample of Chinese in more depth than have quantitative studies to date (Kiyak, 1981; Lind et al., 1987; Kwan et al., 1991; Lim et al., 1994). The focus group approach appears to be particularly applicable to the Chinese who may not be willing to express their views in a one-to-one interview situation in order to avoid confrontation, embarrassment and ‘losing face’, recognized cultural features (Taylor et al., 1996). This was apparent in a recent English survey: when subjects were invited to elaborate their beliefs, non-responses were prevalent (Kwan and Williams, 1999). For specific conditions, prompting may be necessary as in the present study tooth decay, gum disease and toothache were discussed simultaneously and treated together as dental disease.

Overall, a good level of agreement was found between the qualitative findings of this study and previous surveys worldwide, particularly the English (Kwan and Williams, 1999) and the Hong Kong (Lind et al., 1987) studies. The perception among Chinese of old age as a major contributory factor to tooth loss has also been reported in the US (Kiyak, 1981) and Taiwan (Hou et al., 1989); and the pessimism over keeping teeth for life has been found among Chinese in Kuala Lumpur (Esa et al., 1992), Hong Kong and the UK (Kwan et al., 1991).

However, there are also inconsistencies. Whereas in the present study the elderly regarded tooth loss as less serious, in the English survey (Kwan and Williams, 1999), a lower proportion of teenagers than the elderly considered the consequences of tooth loss serious. The low perception of susceptibility to tooth decay and gum disease among the elderly in the English survey may be attributable to lack of awareness of these dental diseases (typically, they required prompting to elicit any response) and thus should be interpreted with caution.

While there is broad agreement between the findings of the present study and the Hong Kong survey (Lind et al., 1987) that teenagers were more likely to regard dental disease as preventable, more adults in the English survey (Kwan and Williams, 1999) claimed that dental diseases were preventable. This finding may be attributable to ‘obsequiousness bias’ (Sackett, 1979) as this trait was evident among Chinese during face-to-face interviews in this survey, even with a Chinese interviewer. Some support for this interpretation comes from the finding that both adults and the elderly adopt a symptomatic approach to dental attendance (Kwan et al., 1991; Lo and Schwarz, 1994) and are less likely to visit a dentist as part of their routine dental care than teenagers (Kwan and Williams, 1999).

Traditional health beliefs also appear to be commonly held by the Chinese worldwide, particularly among adults and the elderly. Consequently, the use of traditional remedies is prevalent, as reported in the present study. In Hong Kong, where Western medicine is widely accepted, the Chinese supplement their ‘unmet’ needs by simultaneously or sequentially consulting traditional Chinese doctors and herbalists (Koo, 1987). They resort to traditional remedies for minor health problems as well as for more serious ailments with known root causes. Some symptoms of dental disease, e.g. gum bleeding, are considered to be due to an ‘imbalance of body humour’; it is scarcely surprising, therefore, that many Chinese opt for traditional remedies. Belief in, and reliance on, these traditional remedies have proved resistant to change even following emigration. However, based on the teenage groups’ responses in the present study, it may be that these beliefs will feature less among future generations who have been born or brought up in Western cultures.

If people perceive that preventive methods are available for good oral health, it is then important to establish whether they consider the effort needed to achieve this as worthwhile. Firstly, they will need to value their teeth and then be willing to
perform the appropriate preventive measures for themselves or seek attention from the dental team. In the present study, while all groups acknowledged that they were susceptible to tooth loss, the influence of traditional cultural beliefs on the elderly may lead to a failure to accept the consequences of tooth loss as serious. For the elderly, the implied challenge of intervention to retain teeth in old age may simply be perceived as inappropriate rather than ineffective. The belief that tooth loss in old age is ‘natural’ or ‘good’ leads to reinterpretation of the adverse consequences.

Adults were more likely to recognize the consequences of dental disease as serious, but typically viewed available preventive measures as relatively ineffective. The focus group responses among adults suggest that this attitude may reflect past dental experience as much as cultural beliefs. Even among adults who considered that dental intervention might be effective, the costs of dental care were perceived as outweighing the benefits. In contrast, teenagers expressed strong faith in the effectiveness of dental care in prevention. For them, the benefits clearly outweigh the costs.

The variations between generations may be related to a number of factors, individually or in combination. The different education levels, most marked between the teenagers, on the one hand, and the elderly, on the other, may account for much of the difference found between the age groups in their attitudes toward, and stated use/access of, dental health services. After all, a strong relationship between social class, itself highly correlated with educational attainment, and the uptake of dental services pertains within the adult population in the UK as a whole (Todd and Lader, 1991). Educational levels, along with being schooled in the UK, are associated with the ability to communicate in English among UK Chinese. For the elderly and adult groups, communication difficulties were frequently mentioned as a barrier to visiting and revisiting the dentist, as found in other ethnic minority groups (Commission for Racial Equality, 1987; Williams and Gelbier, 1988). It may also be a barrier to accessing information in general.

Both educational levels and, in particular, ability in English are associated with absorption and adoption of aspects of UK culture. The teenagers, whether educated in Chinese or non-ethnic schools, appear to have adopted the prevailing UK culture, at least as far as oral health beliefs and attitudes toward dental care and services are concerned. In contrast, the other age groups, most notably the elderly, appear to have remained relatively insulated from the prevailing culture and retained their cultural beliefs and value systems. Together with the cultural preference for self-help and self-sufficiency, these beliefs remain a significant barrier to the access of dental health services.

The present report provides much needed data on the oral health beliefs and attitudes of the UK Chinese Community. The analysis of these beliefs and attitudes indicates that they pose a major challenge for effective oral health promotion among elderly and adult Chinese groups.

The data from this study and the North East England survey (Kwan and Williams, 1999) have been used to inform the development of specific health promotion materials and a strategy for the UK Chinese (Kwan and Williams, 1998). For teenagers, conventional UK oral health promotion approaches may be sufficient. However, for the elderly and those who hold strong traditional health beliefs and negative attitudes towards dental care, a more sensitive approach is needed. Such an approach, drawing on this study’s data, has been developed and evaluated, and shows promise (Kwan and Williams, 1998).

Acknowledgements

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