ORIGINAL ARTICLE

Beliefs and practices to prevent drowning among Vietnamese-American adolescents and parents

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Accepted 26 September 2006 **Objective:** To determine the beliefs, attitudes and practices regarding water safety among Vietnamese-Americans through focus group interviews.

Participants: 15 teenagers (aged 15–19 years) and 20 parents participated, and reported similar attitudes, beliefs and practices regarding water activities. Participants identified a lack of familiarity with water activities and few swimming skills, noting that these activities are not perceived as recreational sports among the Vietnamese. They reported recreating at open water sites because they are free and available, and attributed drowning to fate. Vietnamese youth swim unsupervised, responding to peer pressure despite lack of skills. Participants had negative attitudes toward life jackets using, swimming pools and lessons, because of the costs, but would attend lessons in Vietnamese. They identified schools and Vietnamese media as means of delivering injury-prevention messages.

Conclusions: Decreasing drowning among Vietnamese-Americans requires changing the knowledge, attitudes and safety practices with programs and messages in Vietnamese, as well as targeting the dominant culture.

mong children and young people aged <18 years in Washington State between 1994 and 2003, the drowning rate among Asians (2.7) was higher than that of African-Americans (2.1) and whites (1.5). To deal with this disparity with a plan to develop interventions to prevent drowning targeted to Asian-American communities, we organized focus groups with immigrant Vietnamese parents and teenagers to determine their knowledge, beliefs and practices regarding water safety. As many cases of drowning involved Vietnamese children and teenagers, we chose to study this relatively homogeneous ethnic and language group. Also, with drowning being the leading cause of unintentional death due to pediatric injury in Vietnam, our findings could be useful beyond the US.²

METHODS

Advisers from the Vietnamese community provided input to focus group planning and to cultural customs.

Focus group participants were recruited through English and Vietnamese fliers. Participants had to be Vietnamese, living in King County, Washington, and have recreated around water. Parents had to have at least one child aged 10–18 years and adolescents had to be 15–19 years of age. All participants received stipends and reimbursements for transportation.

We organized discussions with four focus groups, two with parents and two with teenagers. Both parent and one of the teen focus groups were conducted in Vietnamese; one teen focus group was conducted in English.

The bilingual facilitator followed a script developed using the Precede–Proceed model that evaluates three categories of factors that influence behavior: predisposing factors (perceptions of supervision, life jackets, characteristics of good swimmers and reasons for drowning), enabling factors (where to learn about water safety, the need for translated materials, the value of signs and how public pools can be more responsive to community needs) and reinforcing factors (discount programs, peer modeling and to whom Vietnamese-Americans look for credible information on this topic).³

Discussions were audiotaped, translated and reviewed to identify recurrent themes. The quotations given later represent translated terms or statements from members of focus groups.

RESULTS

A total of 10 male and 5 female teenagers and 2 male and 18 female adults participated. All were immigrants.

Parents and teens reported that the local Vietnamese community was unaware of drowning risks, did not think about water safety and believed that drowning occurs from "leg cramps" or "slipping on rocks". They noted that reasons for drowning in the US differ from those in Vietnam (houses built over water, fishing). Their general approach to prevent drowning was to avoid the water.

All reported that they visit open water, lakes and rivers, because they are free. Adolescents preferred open water to swimming pools because they were "more fun" and less restrictive.

Most parents reported being poor swimmers or nonswimmers, at the most wading in water, and feeling uncomfortable wearing swimsuits. Most did not own a swimsuit. They explained that most Vietnamese do not think about water in a recreational sense and do not learn to swim.

Few moms and dads know how to swim. When we take the kids swimming and if they are drowning we are afraid to run in and help. [Parent]

They opined that the high Vietnamese pediatric drowning rates occur because Vietnamese children do not swim or participate in water activities from an early age like their white counterparts, saying "Americans are stronger", noting that "Very few people participate in sports like Americans"; "In a swimming pool there are 20 American kids and only 1 Asian". They believed that starting lessons at school age was more appropriate. Teenagers were aware that their swimming skills were less than those of their "American" peers, but that this rarely kept them from swimming with friends. Moreover,

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parents were unable to limit their children's activities, stating, "Going out to the lake, we must let them go ... don't have a choice".

Parents defined supervision of children as "watching", but parents and teenagers agreed that supervision is unnecessary if a child is old enough to be home alone, knows how to swim, that large groups provide safety and that children "take care of each other", distrusting lifeguards because lifeguards watch too many people.

All attributed cases of open-water drowning to fate, "their time to go". Parents also believed that "spirits pull you down" in the water to replace the ghost "hon ma"; often, these were the ghosts of those who had drowned and placed relatives at higher risk of drowning. They identified specific lakes inhabited by ghosts and recommended that they be avoided. Adolescents vehemently refuted superstitions about ghosts.

Parents and teenagers identified Vietnamese teenagers as risk takers owing to peer pressure. Adolescents reported that they would participate in water activities even if they could not swim, because of the fear of social exclusion. Several related overestimating abilities around water, swimming without parental knowledge or approval despite a lack of swimming ability, stating, "If we asked and the family won't let us go, we go anyway", and use of alcohol despite being aware of its risk. Male teenagers stated that they were more likely to take risks when around girls. All related that their Vietnamese cultural values contribute to recklessness and disregarding safety rules. One parent said, "We have 'risky blood', brave, take chances", said a parent.

All believed that a life jacket identifies someone who cannot swim; "they are for young children" and is not necessary for those who can swim. Parents did not own life jackets because "Vietnamese do not participate in those types of sports" (paddle boating and canoeing). All reported using life jackets only if required, as they are bulky, expensive and inhibit swimming. However, teenagers responded positively to a smaller, inflatable life jacket.

Parents identified potential incentives for swimming lessons as convenience (close to home), timing (evenings and weekends), low cost and transportation. Teenagers demanded classes with similar-aged Vietnamese peers, conducted in Vietnamese. Parents were interested in learning about the water safety in swimming classes conducted in Vietnamese. They would consider taking swimming lessons if sent a personal invitation. Teenagers wanted skills to evaluate the water conditions and potentially dangerous situations, and expressed some interest in life jacket-loaner programs.

For effective water safety messages, parents suggested: "Should be fully prepared before going near water," "Even good swimmers need to wear life jackets" and "Life jackets increase your chance of survival." Adolescents suggested: "Don't swim alone," "Need to take swimming lessons" and "Don't go too far-deep water." They recommended presenting statistics on drowning, a video of someone drowning and tailoring information specifically to adolescents. Parents and youth wanted information on life jackets, supervision requirements and other messages about water safety in Vietnamese for parents and in English for teenagers to facilitate intergenerational communication.

Saying, "only the teacher can teach them", parents identified schools as the best place to learn about water safety, reinforcing messages and skills, and wanted schools to offer swimming lessons. Participants also identified Vietnamese media, especially newspapers, and swimming instructors as resources. Healthcare providers were reported as poor informational sources, as Vietnamese visit them only when they are sick. Teenagers concurred that school teachers

are better resources because parents are superstitious. Teenagers identified schools, churches, temples and movie previews as good places to learn about water safety and skills.

DISCUSSION

This study identified the geographic (warm water), economic (little recreation time and income) and cultural experiences that ethnic groups may bring from their home country that may contribute to their greater risk of injury. The focus groups described a community historically lacking familiarity and experience with swimming and water activities, and lacking a supervision approach based on maturity, water safety knowledge or skills. They also showed a community that, for economic and cultural reasons, does not use available resources, such as swimming pools, swimming lessons and lifeguards.

To make gains in injury prevention in the face of increasing diversity, efforts to reduce injury must identify and deal with disparities among ethnic groups. Australia, Canada, the Netherlands and the US have reported but not explained higher rates of drowning among ethnic minorities. Studies of other injuries show that lack of knowledge, access to, and use of safety practices may explain the increased burden of injury of these minorities. Thus, increasing the availability of well-supervised open-water swim sites and low-cost swimming and water-safety lessons for communities with limited access may help in dealing with their disparities in drowning rates.

However, this study identified the need for injury-prevention approaches to be ethnic specific. Attitudes that may challenge interventions in this community are parents' reported inability to control their children's activities, to adequately supervise and rescue, and their fatalism. Educational efforts aimed at the less superstitious teenagers or a paradigm shift might be more successful. The teenagers' eagerness to obtain training so that they can participate with their white peers suggests that behavior change may be more successful if focused on skill acquisition and "smart" behaviors such as safe swimming, use of life jackets and recognition of water hazards, rather than on injury-prevention in itself. Although the interventions used may not differ among ethnic groups in themselves (life jackets and water awareness), this study reinforces the need for educational messages to be designed keeping cultural beliefs and practices in mind.

This and other studies suggest that schools, teachers and the media are the most powerful sources of information on injury prevention and interventions for the Vietnamese community. Part Concordance between adolescents and parents responses emphasized the need to develop messages to reach both groups. Others suggest that prevention campaigns in Asian and Pacific Islander communities emphasize cultural and family strengths, and active involvement of parents. Native language seems key to acceptance and participation in interventions and the success of community-based campaigns targeting linguistically diverse communities.

This study was limited to a small, regional group. Focus groups are a relatively new concept to Vietnamese families. Discomfort discussing personal issues with strangers, and cultural pressure to give the "right" answer may skew results. New immigrants or refugees may often be reluctant to sign papers or participate in a new program. Finally, perspectives of old versus recent immigrants may differ. However, the concordance of opinions expressed suggests that focus groups can be an effective method of assessing different cultural and ethnic groups.

Efforts to prevent drowning need to deal with the awareness, attitudes and practices of the Vietnamese-American community. Many of their attitudes and beliefs

Key points

- Parents and teenagers interviewed reported that the Vietnamese community does not participate in water sports, that they were unaware of drowning risks in their water activities and that they did not have watersafety skills or use precautions. Efforts to prevent drowning within this community must therefore deal with awareness as well as cultural attitudes and perceptions.
- The most formidable attitude expressed by adults and teenagers of this community was the fatalistic belief that individuals are unable to manage or reduce the risk of drowning.
- Participants indicated that the most powerful sources of information on preventing drowing for the Vietnamese community were (1) schools and teachers and (2) the media, especially Asian-American newspapers and
- Participants noted that one key to a successful water safety program would be the provision of information on water safety and low-cost courses on water skills in Vietnamese
- Continued efforts to alter the normative behaviors and beliefs of the dominant American culture may also be effective in changing the behaviors and perceptions of Asian-American subpopulations seeking to adapt to American norms.

seemed universal, including the power of peer pressure, the concern about appearing weak, the notion that life jackets denote and promote poor swimming ability, and that swimming ability is protective.4 These findings emphasize the need to continue targeting prevention interventions to the main culture, while ensuring that safety messages also reach subpopulations at high risk. Changing normative behaviors and perceptions of the dominant culture may effectively change behaviors and perceptions in subpopulations seeking to adapt to mainstream norms.16

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REFERENCES

- Death Certificate Data. Washington State Department of Health Center for
- Health Statistics, Olympia, WA.
 TASC/UNICEF. Vietnam—child injury in Vietnam. In: Towards a World Safe for Children: UNICEF/TASC Conference on Child Injury. Bangkok, Thailand: TASC/UNICEF, 2004:47-53.
- 3 Green L, Kreuter M. Health program planning: an educational and ecological approach, 4th edn. New York: McGraw-Hill, 2005.
- 4 Groff P, Ghadiali J. Will it float? Mandatory PFD wear legislation in Canada: A background research paper, Toronto, ON:SMARTRISK, http://www.csbc.ca/html/willifloat/willitfloat_eng_chap01.pdf (Accessed 14 November 2006).
- 5 Stirbu I, Kunst AE, Bos V, et al. Injury mortality among ethnic minority groups in the Netherlands. J Epidemiol Community Health 2006;60:249–55.
- 6 Brenner RA. Prevention of drowning in infants, children, and adolescents. Pediatrics 2003;112:440-5.
- 7 Quan L, Cummings P. Characteristics of drowning by different age groups. Inj Prev 2003:9:163-8.
- 8 MacKellar A. Deaths from injury in childhood in Western Australia 1983–1992. Med J. Aust 1995;162:238–42.
- King L, Thomas M, Gatenby K, et al. "First aid for scalds" campaign: reaching Sydney's Chinese, Vietnamese, and Arabic speaking communities. Inj Prev
- 10 Mulvaney C, Kendrick D. Engagement in safety practices to prevent home injuries in preschool children among white and nonwhite ethnic minority families. Inj Prev 2004;10:375-8.
- 11 Lam TK, McPhee SJ, Mock J, et al. Encouraging Vietnamese-American women to obtain Pap tests through lay health worker outreach and media education. J Gen Intern Med 2003;18:516-24.
- 12 Jenkins CN, McPhee SJ, Bird JA, et al. Effect of a media-led education campaign on breast and cervice access screening among Vietnamese-American women. Prev Med 1999;28:395–406.
- 13 Chen AL, Kuss TT, McKeirnan S, et al. Developing partnerships in Washington State to prevent hepatitis B virus infection in Asian Americans and Pacific Islanders. Asian Am Pac Isl J Health 2001;9:195-204.
- 14 Sadler GR, Nguyen F, Doan Q, et al. Strategies for reaching Asian Americans with health information. Am J Prev Med 1998;14:224–8.
- 15 Kuramoto F, Nakashima J. Developing an ATOD prevention campaign for Asian and Pacific Islanders: some considerations. J Public Health Manag Pract 2000:6:57-64.
- 16 Brugge D, Dejong W, Hyde J, et al. Development of targeted message concepts for recent Asian immigrants about secondhand smoke. J Health Community 2002;7:25-37.

LACUNAE

Children don't hit others with a frying pan

▶ hildren do not follow Tom's example by smoking. Or by repeatedly hitting others with a frying pan, torturing them, trying to oven-roast them or setting the neighbor's dog

A Birmingham Post columnist suggesting a disclaimer for the beginning of somewhatviolent Tom and Jerry cartoons. The columnist was responding to efforts to shield children from images glorifying cigarette smoking (from CDC Public Health Law News, contributed by Ian Scott).