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ORIGINAL PAPER

Primary Prevention for Resettled Refugees from Burma: Where to Begin?

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Abstract Developing effective primary prevention initiatives may help recently arrived refugees retain some of their own healthy cultural habits and reduce the tendency to adopt detrimental ones. This research explores recent arrivals' knowledge regarding eating behaviors, physical activity and sleep habits. Working collaboratively with community members, a healthy living curriculum was adapted and pilot tested in focus groups. A community-engaged approach to revising and implementing a health promotion tool was effective in beginning dialogue about primary prevention among a group of recently arrived refugees from Burma. Seven themes were identified as particularly relevant: food choices, living environment, health information, financial stress, mobility/transportation, social interaction and recreation, and hopes and dreams. Refugees desire more specific information about nutrition and exercise, and they find community health workers an effective medium for delivering this information. The outcomes of this study may inform future targeted interventions for health promotion with refugees from Burma.

Keywords Refugee health · Prevention · Healthy eating · Physical activity · Community-based participatory research

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Introduction

Since the 1980s, Central Massachusetts has been the destination of a growing refugee population. According to the Massachusetts Office for Refugees and Immigrants, between 2006 and 2011, 2,350 refugees settled in Central MA [1]. As newcomers, refugees arrive hoping for a better future but face challenges that often render those hopes elusive. While they may experience the benefit of leaving a war-torn country, they face new challenges. Among others, these include: a new tendency toward unhealthy eating habits [2, 3] acculturative stresses [4–6], confusion navigating transportation systems [7], and difficulty communicating [8]. Studies have documented implications for the health care system as it tries to help refugees address these challenges [9–13]. Of particular concern is that refugees who arrive in generally good physical health often develop the chronic conditions and diseases that have become common in our communities [8, 14].

The development of chronic disease is a troubling issue that health care providers are trying to address with these newcomers. Developing effective primary prevention initiatives may help recently arrived refugees retain some of their own healthy cultural habits and reduce the tendency to adopt detrimental ones. Building on a unique partnership between medical and nursing school students and the Worcester Refugee Assistance Project (WRAP)—a local non-profit that serves refugees from Burma—we developed

and implemented an exploratory research project. This project, funded through the University of Massachusetts' Worcester County Prevention Research Center, explored and documented recent arrivals' knowledge regarding healthy eating behaviors, healthy weight, and optimal management of selected chronic health conditions. In addition, we solicited ideas from them regarding potential health promoting interventions. With our WRAP member partners, we reasoned that increasing our understanding of these refugees' experiences and attitudes around health related behaviors was necessary—albeit insufficient—to being able to fashion relevant and effective interventions that WRAP and community partners could initiate and that could inform providers treating refugees.

The research team identified a healthy living intervention tool for use in exploring attitudes and knowledge among members of the WRAP community. Created by the Khmer Health Advocates in Connecticut, the Eat Walk Sleep (EWS) diabetes education tool has been used with a local Cambodian community who faced hardships common in Thai refugee camps and during the resettlement process in New England. This paper describes the process used and results from implementing the university/WRAP collaborative adaptation of the EWS healthy living curricular tool. Our project aimed to address two main questions:

1. What views do refugees from Burma settling in Worcester, MA hold about health and wellness? Do they–and if so how do they–understand the relationship between behavior and the development of poor health conditions, such as overweight/obesity, hypertension, cancer and diabetes?
2. How does exposure to/interaction with a healthy living curriculum influence the views of resettled refugees toward health, wellness, and prevention of poor health conditions?

Methods

Adaptation of Tool

Using small group participatory methods designed to build capacity for pro-active healthy behaviors within the community from Burma, four members of our research team met with eight WRAP community advisory representatives to adapt the EWS flip chart. The community advisory group included representatives from four ethnic groups from Burma: Karen, Karenni, Kachin, and Chin. Our aim was to ensure that we incorporated a relevant cultural perspective. The research team held a series of three meetings with the advisory group to review each content area and recommend adaptations. At the first meeting, the researchers presented the flipchart to the entire group, reading the content aloud first in English, then translated into Burmese. Further translation from Burmese to Kayah, a regional language of Burma, was conducted for those unable to follow either the English or Burmese language content. We then formed three small groups, with research team members and community advisors in each group. The small groups reviewed different sections of the curriculum; one group focused primarily on the "Eat" portion, the second on "Walk" and the third on "Sleep." Each group developed ideas for adaptations, then returned to the large group for discussion of the suggested alterations. The same method was followed in the second meeting, with the full group reviewing the adapted sections from the first meeting, then dividing to adapt sections on "Traditional Beliefs," "Trauma" and "Healthy Minds." A third adaptation session consisted of a final review of all six curricular sections, with more detailed focus on the translation as well as the visual presentation, graphics and photographs.

Pilot Workshops with Evaluative Discussions

Leaders within the refugee community assisted in recruiting 20 young adult members of Worcester's refugee community from Burma. Eligibility included those aged 18–40 who have resettled in Worcester in the last 3 years via refugee camps on the Thai border and via Kuala Lumpur. This number of participants represents nearly 10 % of the population of refugees from Burma in Central Massachusetts [1]. There were no written recruitment materials, as the population from which we were recruiting has low literacy in either English or their native languages. Two community member recruiters were trained to understand the concepts of coercion and consent prior to doing this outreach. They recruited participants through word of mouth, explaining the voluntary nature of the session and that it was part of a research study. The study was approved by the University of Massachusetts Worcester's Institutional Review Board.

Community partners advised that workshop conversations would be more open if elders from the community were not included in the same groups as younger people. For similar reasons of comfort and openness, groups were divided by gender, with 1 day's session offered to men only and the other to women. We conducted the workshop sessions at the WRAP community center, a location that participants find safe and familiar, thereby improving the likelihood that we would obtain honest comments and responses [15]. In addition, given that participants spoke a range of languages and had a range of ability levels, we planned each workshop for a full 1.5 h. As participants had little written literacy in any language or dialect, written surveys and questionnaires were not appropriate. With

further explanation of the voluntary nature of the exercise, we obtained consent verbally at the start of each session; we made an English-language fact sheet available for participants. The two pilot sessions were facilitated by a researcher and interpreter working as a team and were audio-recorded in their entirety for later analysis.

Researchers developed a set of questions (Table 2) to explore health beliefs and practices before and after the workshop. These questions were presented initially during a 25-min structured verbal discussion aimed at assessing participants' health beliefs and behaviors in the areas of wellness and illness prevention. Following this discussion, we conducted the interactive workshop using the modified EWS curriculum. All content was stated first in English, then translated into Burmese. Participants generally spoke in Burmese or other native languages, with the content translated back into English for the benefit of the researchers. At the close of the workshop, we engaged participants in a verbal post assessment aimed at exploring ways in which the EWS curriculum/discussion may have affected their concept of health and behaviors.

In response to negative feedback regarding the usefulness of engaging in pre and post curriculum discussions immediately before and after the actual curriculum, we revised the approach and used only post-curricular questions for the second workshop. Following both sessions, all content spoken in English was transcribed verbatim. Transcripts of the sessions were analyzed using grounded theory, allowing themes to emerge through a process of iterative thematic coding [16] until all ideas in the transcripts were represented in the codebook. Themes were identified deductively from the start based on content of the workshops (for example, eat, walk and sleep were initial categories) and later themes were added inductively following careful reading and re-reading of the transcripts and notes (for example, hopes and dreams and financial stress were not part of the curriculum but emerged in many of the discussions as important to people's behaviors around eating and sleeping).

To validate our data and ensure accurate understanding, we used triangulation in a final evaluative discussion with members of the WRAP advisory group who had guided the adaptation process. After presenting a draft summary of the data analysis and results, members reviewed and discussed the themes derived from the analyses and either confirmed or modified our understanding of the findings.

Results

Adaptation of Tool

Eight advisory board members assisted with the adaptation process. Four separate participatory sessions were held, three in the home of a WRAP board member/interpreter and one at the WRAP center. Adaptation centered on including examples the community found relevant, removal of religion-specific material, and replacement of photos to depict Burmese rather than Cambodian foods, people and places.

Following the first pilot session, the EWS curricular sections were re-ordered. The original tool consisted of six sections, first discussing traditional beliefs about health and healing, then moving to nutrition, exercise and sleep, followed by trauma and a section on mental health denoted as "Healthy Minds". Based on the group's feedback, we decided that the Traditional Beliefs section would be more effective if presented later in the program, allowing the group to warm up with more socially neutral topics such as nutrition and exercise. Consequently, prior to the second session, we moved flipchart content regarding traditional beliefs to follow the section related to sleep.

Pilot Workshops with Evaluative Discussions

WRAP recruiters worked from a list they had generated of 53 adults in their community who would be eligible for participation. Recruiting occurred at regularly scheduled WRAP events such as English language classes. Seven women and 11 men between the ages of 20–40 attended the two pilot workshop sessions. Mean age for women was 27 and for men 31. Each session lasted between 1.5 and 2 h, and followed a communal, traditional meal to break the ice and increase comfort within the group. Field notes from the translator indicate that the groups were ethnically mixed, with representatives from Karenni, Karen and Chin states in Burma (Table 1). Members of the community were paid to translate as well as to provide the meals and child care to participants. The final conversation to review results included seven people from the advisory group, three men and four women, as well as a translator.

Insights from this pilot project extended to areas beyond our original research questions. Below, we provide answers to the original questions, then outline additional new

Table 1 Demographic characteristics of study participants

	Men	Women
N	11	7
Ethnicity		
Burman	1	0
Chin	1	1
Karen	5	3
Karenni	4	3
Age		
Mean (range)	31 (22–40)	27 (20–29)

Table 2 Questions to guide discussion before and after workshop: these questions will be used as a guide for the moderator and interpreter, who will reword questions as necessary if not understood by participants

UMass Department of Family Medicine and Community Health

Worcester Refugee Assistance Project & Common Pathways

Primary Prevention for Resettled Refugees from Burma: Where to Begin?

Thank you for taking the time to meet with us

We are from UMass Medical School, Common Pathways, and the Worcester Refugee Assistance Project (WRAP). We are talking to refugees from Burma about healthy living. We would like to ask you some questions about what it means to be healthy and unhealthy, what are your ideas on certain health issues, and future needs for your community. We are only here to record your thoughts and ideas so we can improve the services for refugees from Burma in the future. We are not here to solve the problems now

We want this to be a safe place for you to talk freely. You do not have to answer any questions if you do not want to. We will not write down your name so no one will know what you have told us. We are tape-recording today's conversation, but your names will not be linked to the things you say in this group. If you would like to talk more to someone about how things are going for you, please let us know and we can help you find the right person or place to go

1. What are the most important things you do to be healthy?
   a. Where or from whom did you learn to do those things?
   b. What happens if you do not do these things?
2. What are examples of things that are unhealthy when you lived in Thailand? In the US? (Probe for the following)
   a. What do people in your community do that is unhealthy?
   b. How can you tell when people are unhealthy?
   c. Who do you talk to when you are not feeling well?
      i. Who do you talk to in the community from Burma if you or your children are not feeling well?
3. We want to talk about size and weight
   a. Which of these boys are a healthy weight? Which are not? Why?
   b. [Show picture of obese child.] Is this child healthy or unhealthy? Why?
   c. [Show picture of malnourished child.] Is this child healthy or unhealthy? Why?
   d. Do you know people who are worried about their weight? What do they do about it?
   e. How can we prevent someone from becoming overweight or obese?
4. Where do you get the information you need to stay healthy? That is, information about what you can do, or what you should eat to stay healthy?
   a. What kind of information do people from Burma in Worcester need to learn about health?
   b. Who do you ask for health information or advice?
5. Why is it hard to be healthy? What can you do about these things?
6. How can we help the people from Burma in Worcester to be healthy?

understandings we gained regarding the transition from life in refugee camps to resettlement in a midsized northeastern US city. We emphasize insight into how that transition influences people's inclination or disinclination toward healthy behaviors in the areas of diet, physical activity and sleep.

Answering the Original Research Questions

To explore our first study question about refugees from Burma's views of health and wellness, we began the first workshop by asking participants a series of questions related to this issue (Table 2). All recorded responses confirmed an understanding of the relationship between behavior and health. Respondents outlined a range of behaviors as leading to good health, including eating nutritious foods and exercising; they also identified unhealthy habits known to affect health negatively, such as smoking, chewing betel nut, watching too much TV and drinking soda. They discussed the impact of stress on their ability to sleep, and the impact of sleep loss on health. They did not mention specific diseases such as heart disease or diabetes. In the workshop that consisted only of men, participants also discussed traditional beliefs about discerning the cause and meaning of illness and healing through the use of ceremony and sacrifices; this topic did not arise in the initial workshop comprised of women.

Our second study question explored how exposure to/interaction with a healthy living curriculum might influence the views of resettled refugees toward health, wellness, and prevention of poor health conditions. Although participants were involved in every step of the adaptation, in the end they did not feel the flipchart produced by our efforts was a useful tool for providing health education to adult refugees from Burma. They did, however, see its utility as a tool for teaching children about health as well as for teaching English language skills to all ages since the flipchart opened to expose the Burmese on one side and the English translation on the back. Data from the workshops indicate that participants did gain new insight in at least two instances. First, during adaptation of the "Walk" curricular segment, participants recognized positive outcomes of walking other than as a mode of transportation. They expressed a realization that the walk home from work when living in the camps had provided a calming transitional period between work and home; securing a ride home in the US did not provide this benefit. Further discussion appeared to prompt participants' realization that walking was still available as an optional no-cost health promoting strategy.

A second indication of the impact of participation in the workshop came when a participant suggested that we return to conduct community education on the topic of

nutrition and proceeded to recommend that we use a method very similar to that which we had modeled during the adaptation, with small groups working together then reporting back to the larger group. Familiarity and adoption of these methods may be signaling an increase in the capacity of this community's members to participate as full partners in structured research projects.

Understanding the Impact of Transition from Refugee Camp to Life in Central MA

Workshop conversation prompted from the EWS curriculum centered on differences between current and previous living situations and how those differences affected refugees' health behaviors. As summarized in Table 3, comparisons among participants' experiences in their original homes, the refugee camps and their post-resettlement homes in the United States (US) touched upon seven dimensions: food choices, living environment, health information, financial stress, mobility/transportation, social interaction and recreation, and hopes and dreams. Within each of the dimensions we found a recurring theme related to choice—limited in their previous environment but abundant in their new surroundings. Sometimes choice was construed as a privilege but more often as a burden in comparison to the life they knew previously. Below, we examine each dimension and share insights from the data.

Food Choices

In the past, people were able to grow their own vegetables year-round. Meat was a rare treat. When they were living in the refugee camps, each person received a ration of foods—rice, fish paste, mung beans, and dried chilies, as well as cooking oil, sugar and salt. Some were able to continue to grow food and to trade with others. Here in the US, they face a plethora of choices, but have difficulty finding foods that are familiar or that they know are healthy. One of the women participants reported that in general, their children don't like to try new foods. Of particular concern is that they can't find a milk product that has the same taste as that found in the camps and they do not like the taste of American milk products. Although some women reported concern about gaining weight, the more common complaint was weight loss among their family members, reported by those unable to find local foods with flavors they enjoy. Participants expressed concern about ensuring they have healthy food, as from life in the camps they are familiar with malnutrition and its effects. They were eager to learn detailed information about healthy foods available in the US and how to prepare them.

Living Environment

Male as well as female participants were quick to identify environmental health hazards not uncommon in the camps, including bathrooms that were not contained, animals kept in yards, and the presence of flies and mosquitoes that carried germs and caused illness. Here in the US, they found a set of different but equally challenging environmental concerns—high traffic areas making it unsafe to walk, city noises causing difficulty sleeping, and rules against leaving children unattended.

Health Information

In the camps, public health education was well-known and widely shared, as loudspeakers would broadcast relevant health information each morning and community health workers would visit people in their living areas. Non-governmental organizations such as American Refugee Committee International, Première Urgence-Aide Médicale Internationale, and International Rescue Committee were actively involved in public health efforts; health-related magazines were available and addressed concerns common in the camps such as malaria and mine injuries. Several participants noted that in the US, they had made a connection through WRAP to a few health professionals, including a graduate nursing and a medical student. Both of these individuals were named as welcome sources of health information, as were family members. Women also mentioned friends as a source; men did not.

In the discussion with men, another primary source of care was identified, i.e., the chicken-bone fortune-teller who in certain instances would be consulted for diagnosing and treating health problems. For the cost of a "$2 phone call" people can request that a ritual be performed in the camp setting to inform them whether their problem was spiritual or physical in nature. If determined to be physical, a person would follow up with a western health care professional. If, however, the problem was determined to emanate from the spirits, then another ritual might be needed. Men explained that this traditional belief was held by many people from Karenni state, and that these beliefs crossed religious boundaries—whether a person is Christian or not is less predictive of reliance on ritual than where in Burma a person was from originally. The men are aware that this is not a mainstream belief system, but as one man explained, "The point is that traditional beliefs cannot be let go, it is very hard to abandon them". "Throughout their lives they have seen many examples whether it is true or not, it is ingrained into their beliefs and they would like to continue."

Table 3 Themes emerging from healthy living discussions with recently resettled refugees, with illustrative statements translated during workshop discussions with men (m) and women (w)

Dimension	In refugee camp environment	After resettlement in US
Food choices	Grew or collected own vegetables year-round	Many choices but most not healthy
	Meat is rarely eaten but higher quality than US	Food doesn't taste as good here, especially meat and milk
	Staples provided by camp/NGO system: Refugees given flour, rice, fish paste, salt, chilies, cooking oil and beans	Family won't eat food they aren't used to
		Took time to find staples similar to camp
	"They would find their own bamboo shoots, is usually what they go out and collect in the camps, and here you just go to a Vietnamese store and get it." (w)	"The problem with her family is that they only like to eat what they are used to. So when they got here the doctor said this is the kind of milk that your children should be drinking, and she tried to have them drink it but they wouldn't because it doesn't taste good." (w)
		"She doesn't eat American food, and she eats the same as in the camp, but she can't figure out why she is gaining weight." (w)
		"She thinks that a lot of the Burmese people don't know how to eat in balance. If they see something that they like, they will eat a lot of it. For example, if they see some Burmese food that they like, they will eat a lot, and that they will not eat anything that they are not used to; American food. So she does not think that we know how to eat in balance."
Living environment	Traffic and noise were not a problem	People scattered around city - Isolation is a problem
	Lack of running water made hygiene and cleanliness an issue	Difficult to spend time together; few gathering places
	"The environment is usually not very clean, so there is a lot of mosquitoes that can transmit disease over there." (w)	People afraid to go far from home since they can't find their way back—want simple maps
	"In Burma, didn't have clean water and also the bathrooms, it wasn't contained which led to the smell and all the bugs." (w)	"He can only sleep when it's quiet; he can't sleep when he hears noises from the road—it is a lot louder here." (m)
		"In order for them to do that back home, they would go to a quiet place, and it is hard to find a place like that here. " (m)
Health information	Public service announcements daily	Have connections to a few health workers through WRAP
	Health workers in camps	Want specifics on what foods are fattening, what to do when baby is sick or child has a rash—times when they want advice urgently but not emergency
	Magazines on common health concerns	
	Traditional beliefs held re: source of illness	Want to know about common health problems here and how to avoid them
	"In the camps, they have speakers and somebody would just speak into the speakers and you have no choice but to listen. They would do it every day and early in the morning. So at least somebody would know something about it, because somebody would be talking about the health information all of the time. Somebody would learn something at least." (m)	Call camps to ask traditional healers whether each illness is caused by spirits or could be healed with medicine
		"Mark, one of the volunteers. They would call Mark and Mark would take them to the hospital, but they don't really know where the hospital is." (w)
	"When a child is sick, they go to a chicken-bone fortune teller, and they would go to the forest and call her. They believe that it's the evil spirits that's in the child, so they would offer little pigs or chicken bones to the spirits. They can't help but believe that it helps the child, because as soon as they do that, the child would get better. And that belief system is the same, it doesn't matter what religion you are, if you are Christian or Buddhist, the traditional belief is the same." (m)	"If somebody gets sick in the community, they would call their best friend or whoever they are most comfortable with and then ask "my child is sick, what should I do", and if that person doesn't know, they would then call another best friend, that person would call and the phone tree continues." (w)
		"Back home, they would have to kill the pig, and then they would roast the pig before they offered it. And if they went to a forest and did that here, they would probably get arrested, or at least get asked questions." (m)
Financial stress	Work hard during the day and sleep well at night	Hard to find work but need money to pay for things
	More worker protections	Stress from constant strain of bills to be paid
	Didn't have to worry about daily stress of paying bills	Worry about cost of living but also cost of dying—expenses associated with death and funerals
		Food stamp assistance helpful
		"Here they have to be always constantly worried because they keep thinking about how they are going to live here and what they are going to do for their children. It is a lot of worries, so he thinks that a lot of people can't calm themselves down, and that hurts their health a lot." (m)

Table 3 continued

Dimension	In refugee camp environment	After resettlement in US
Mobility/ transportation	Walk to work, school or fields	Traffic makes walking dangerous
	Kids can walk to visit and play together	Must rely on others for rides
	"They go out to get firewood a lot and they would go into the hills, come home, and they would never get any rest, they were just running around." (m)	Kids can't go out alone to school or play
		"The kids go to school up in the mountains by themselves and the parents wouldn't have to take them because there's not a lot of cars and motorcycles that they have to worry about, but here they worry about that and they have to take the kids to school and then once they come back from school they usually just stay in the apartment." (w)
	"For parents, if they have work, they would go to work and that is usually physical work. And if they don't have work they would usually go out to find food. On Sundays they go to church." (m)	
Social interaction and recreation	Group social activities were common	Passive entertainment, TV
	All ages participate in physical games	More time spent indoors and alone
	Sharing memories and telling stories brought happiness	Men see exercise as separate from physical activity at work
	"While they were in the camps the women would usually play volleyball and the men would play either soccer or the cane ball, and the little kids they play a lot of soccer until late at night and they usually have to go get them to come back for dinner and sleep." (w)	"The kids are not happy here because they can't play, and they are afraid that the police would come and take them away because they are usually home by themselves when the parents go to work." (m)
		"When she works she rarely sits down, so she is getting a lot of exercise." (w)
	"The kids played a lot. They wake up, if they are not going to school they would just go to the yard and play, which is something they can't do here." (m)	"For his work, he has to be on his feet for 8 h straight, except for break times. It's not just regular walking, he works at the pallet company so he has … no time to walk. It is either sleep or work." (m)
Hopes and dreams	Did have larger stress of displacement, camp life	Many hope for peace in homeland and ability to return to Burma
	Hoped for better life in the US	Hopes here center around education and better future for children
	"Back home they are running away from the wars." (m)	"Here, they work, and when they're not working, they're always thinking of what they could do for their children, what they could do to make their lives better here." (m)
	"They would go around and visit their friends and talk about their past and that is what would make them happy." (w)	

Stress

Although life in a refugee camp is not free from stress, it is a relatively stable environment, and one in which the basic needs of living are generally assured. Food and shelter are provided for all. As they resettle in the US, people are taking on the burden of new financial responsibilities, suddenly needing to pay monthly bills to ensure that food and shelter are available for their families. Refugees find there is a strict federally mandated protocol to be followed to ensure receipt of maximum benefits in the first 8 months, after which they are expected to support themselves. While learning the language and social norms of their new home, many find it difficult to locate employment, leaving them in a state of constant underlying stress as they try to locate the resources they need in order to succeed.

Mobility/Transportation

In the camps, most of the things families needed were located nearby. Most transportation occurred through walking, which provided physical activity and a level of independence as people could get anywhere they chose while relying only on themselves to possess enough energy to get to and from their destination. Children were able to walk, often unsupervised, to school or to play with friends. Adults could walk to workplaces and to gather food such as bamboo shoots. In the US, traffic makes walking seem difficult and dangerous. Many are reliant on other people to provide rides everywhere they need to go. Bus tickets are expensive and the routes complicated and time-consuming. Children are not supposed to be left unsupervised and parents are unsure of the dangers that may be present along the route to the school or in the playgrounds. Adults are motivated to obtain drivers' licenses and vehicles of their own, a process that provides additional challenges for non-English speakers who struggle with the written portion of the drivers' test.

Social Interaction and Recreation

In the camps, people lived in close proximity to one another. Leisure time could easily be spent visiting, sharing memories and stories with each other and also playing games. Participants reported physical activity at all ages through playing sports. Children could run loose and play after school in a way that seemed to parents impossible here. Now community members are widely scattered and

isolated in apartments with little opportunity for social interaction. While WRAP brings members of this community together for language lessons that are inclusive of child care, as well as activities that include a popular teen soccer team, opportunities for physical activity among adults are generally lacking. An impromptu sharing of dance styles between participants and research staff at the data review and interpretation session resulted in participants requesting a regular program that would encourage such cross-cultural sharing and activity in an informal setting.

Hopes and Dreams

Participants reported that when they were living in the camps, they dreamed about the day they would be able to move to the US and live independently. When asked what they hope for now–what they dream about as they adjust to life here in the US—many responded that they hope for peace in their homeland and dream of returning to their country. Dreams of the future in the US rest upon the next generation; parents expressed pride in their children as they learn English and begin to succeed in school, and they mentioned the many possibilities that will be available to their children once they complete their education. Nevertheless, for themselves, the adults dream of returning in their old age to their country to live out the end of their lives.

Discussion

The results of this community-engaged study indicate that refugees from Burma who have settled in Worcester, Massachusetts, appear to have a basic level of knowledge about health and healthy lifestyles. Armed with this general knowledge related to the association between sleep, nutrition, physical activity and health, what they seek is more detailed information about recommended healthy living guidelines and ways in which they can follow them. The flipchart was useful as an exercise to introduce health-related topics for discussion; in addition, it functioned well as a tool for identifying content of interest to refugees. Based on this project, it appears that it can be used as part of a module for voluntary agencies to use in beginning health promotion conversations with new groups. The adaptation and workshop process provided insights to the challenges and difficulties members of this refugee population face in trying to adapt to life in the US; in addition, it demonstrated that the approach of small group discussions with visual cues remains a useful mode of instruction and information sharing.

It is well known that immigrants who arrive in the US in good health are at risk of developing chronic diseases through acculturation [8, 10, 13] and health generally deteriorates the longer they live in the US. A recent study has shown a temporal relationship between length of time lived in the US and minority immigrants' increased risk for poor health [17]. Using data from the National Health and Nutrition Examination Survey, researchers in their study improved upon earlier studies that have been based on self-reports of selected chronic conditions. Given our level of understanding of the relationship between length of time in this country and the development of risk factors, our public health communities have an obligation to work proactively to help newcomers retain healthy behaviors and delay or eliminate altogether the uptake of unhealthy ones [7, 13].

An organization such as WRAP, one devoted to the transitional needs of refugees, is well placed to address several needs that arose from the EWS workshops. Participants expressed a desire for regular opportunities to come together as a community, to share stories of the past and dreams of the future, as well as assistance solving current dilemmas. Social isolation stemming from current housing placements often separates people who are used to living in close proximity, thus reducing the natural opportunities for interaction that could result in relieving stress. This type of cultural isolation appears to be a fairly common experience for refugees; it appears also to be one that could be overcome fairly easily by providing opportunities for community group activities [18]. Similar to immigrant and refugee populations in other parts of the country [19], participants in our study identified dance as one route to cultivating healthy social activity. They were eager to learn dance steps shared by a community research partner with Columbian heritage and wanted to share their own dance steps in return. Men and women alike joined the spontaneous conga line that emerged during a "stretch break," an action that seemed to erase years of worry from the faces of some participants in the group. Social events with physical activity components could greatly benefit this community.

Refugees expressed a familiarity and comfort with community health outreach workers; in the camps, community health workers had played a significant role in that health care system. Additionally, daily preventive health messages were announced through public communication channels. Workshop participants commented that they viewed the efforts of volunteer health professions students at WRAP as parallel to the work done by camp outreach workers; within a brief period of time, they had come to rely on these volunteers for health information. We applaud the contributions of the learners who have become involved at WRAP and encourage health profession schools to expand their presence in refugee communities, as the service learning opportunities are great and the outcomes of great benefit to both community members and

learners. We would also advocate for allocation of resources for community health workers to serve those newly arrived from refugee settings, a role that is familiar and welcome as a source of health education.

Participants had specific detailed questions related to healthy living in the US. They wanted to learn more about the different foods—good and bad–available to them in their local markets, as well as specific information about their nutritional values, how to prepare them, quantities consistent with a healthy diet, and so forth. They wanted to know how much exercise is required for them to maintain or achieve better health, particularly within a context of physically demanding employment. They also wanted a better understanding of their options when an emergent health need arose, specifically when they should and should not use a hospital emergency room and what other options are available. A next step will be to implement an evidence-based curriculum with greater detail on the topics identified as of greatest interest [20].

One of the recurring themes that emerged from our analysis is the issue of choice. According to behavioral scientist Barry Schwartz, "logic suggests that having options allows people to select precisely what makes them happiest. But, as studies show, abundant choice makes for misery" [21]. Refugees from Burma are arriving in the US having lived in refugee camps on the Thai border for ten or more years. As they explained, during that time, they experienced very little choice; in general, they accommodated to the limited choices that they had and learned to make do. Exploration into the phenomenon of choice shows that more choice doesn't necessarily reflect greater freedom; in fact, modest income individuals generally define freedom as freedom from instability. In this country, as we have conflated freedom with choice, i.e., freedom is about having choices and having choices means greater freedom [22]; consequently, we have continued expanding the number of options from which we have to choose in an ever expanding set of venues. The result is that even people who have grown up with our abundance of choice are now noting the bewilderment that accompanies it. The issue of opportunity cost and what may be "lost" as selections and decisions are made may not stress newcomers as much as natives simply because they may not be aware of all the alternatives. Nevertheless, it appears that the stress of choice abundance is complicating their lives in ways they had not imagined as they seek to make sound choices amidst lack of familiarity and knowledge.

This study has several limitations. Most notably, the number of participants was small and the need for multiple translations may have shaded the results in ways we are unable to identify. Additionally, we were unable to assess the degree to which the EWS materials affected participants' views of healthy behaviors. Nevertheless, we were able to confirm that the flip chart with discussion approach—one that has been used in other contexts and with other populations—is one that can work well with recently arrived refugees to this country.

Conclusion

A community-engaged approach to revising and implementing a health promotion tool was effective in beginning dialogue about primary prevention among a group of recently arrived refugees from Burma. Through the adaptation process we learned that refugees are eager to learn about health promotion in order to succeed in their new surroundings. The issue of choice abundance is one that can overwhelm; in the future, helping refugees navigate this "tyranny of choice" [21] will be a helpful starting point. Refugees desire more specific information about nutrition and exercise, and they find community health workers an effective medium for delivering this information. The outcomes of this study may inform future targeted interventions for health promotion with refugees from Burma.

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