University of Tennessee Honors Thesis Projects   University of Tennessee Honors Program

5-2015

Disaster Resilience in Rural Appalachia

Erin K. Conley
econley3@vols.utk.edu

Recommended Citation

Disaster Resilience in Rural Appalachia

Erin Conley

University of Tennessee, College of Nursing

Capstone Project

Chancellor's Honors Program (UNHO 498) - Nursing Honors Program (NURS 488)

Submission Date: May 1st, 2015

Faculty Advisor: Moriah McArthur, MSc

Clinical Instructor – University of Tennessee, College of Nursing

Abstract

Rural Appalachia includes a wide range of land and people and has a rich history and culture, but the mountainous terrain and economic hardship create challenges for people living in the area to access healthcare, higher education, and other financial and practical resources, resulting in health disparities. Additionally, frequent flooding and ice storms occur and disproportionately impact residents because their location and lack of resources hinder outside help in times of need. The literature reveals many community strengths, primarily their value of kinship, which has the power to impact their disaster resilience through communication, education, and decision-making. This pilot research project aims to begin exploration of the themes related to the role of relationships in creating social support systems that support coping with disasters. Investigators conducted a focus group with a sample of rural elderly individuals. They provided meaningful insight and confirmed many of the findings in the literature that reliability of family and other community members for communication and resources was essential to responding to disasters. An unexpected finding was the discussion of reverse caregiver roles and the increased burden on the elderly population. The project highlights the need for more research on this topic to better understand these themes to inform public health officials and improve disaster resilience in the area.

Introduction and Review of Literature

Rural Appalachia is identified not only by the location and beauty of the land, but also by the rich and unique history of the people who reside there. These characteristics have historically drawn individuals to the area, but the majority of the land has been passed down through generations, which has created strong cultural and community ties. The "land is not just a commodity" to the residents; it is a place full of history, values, resources, traditions, and security that has been essential in the formation of their identity[1]. In spite of this, though, there are many known health and economic disparities related to the changing industry and geographical location.

As the economy strayed from coalmining, the number of jobs was reduced, which caused a loss of a major source of income for the region. Over time, the shortage of employment has led areas like Clay County, Kentucky to have a 9.9% unemployment rate[2] and 34.5% of the population living below the poverty level[3]. This creates difficulty with accessing health care, with 20% of Kentucky residents uninsured in 2010[4].

This area is known for mountainous geography which produces a desirable "element of isolation" that is a unique "facet of the Appalachian culture"[5]. However, the distance and difficult terrain make it harder to access healthcare and resources, especially in times of disaster. This area is prone to ice storms and flooding, and between 1990 and 2009, in Kentucky there were twenty-seven Presidential Disaster Declarations issues[6]. Residents are often left with damaged homes, closed roads, power outages, and no way to access help or properly evacuate. The frequency of

disasters is compounded with economic and geographical factors that greatly affect

the lives of residents.

Despite these disparities, generations continue to stay in the area and are

"deeply rooted to family, mountains, and people"[5].Their culture highly values

kinship, which yields a sense of cohesion and connectedness in the community.

Familial and other social relationship are integral in communication and decision-

making[7]. These strong relationships help construct a society based on mutual

respect, support, and trust. Members of the community are able to rely on each

other, especially in times of need. This carries a unique power and source of social

capital[8]. Kinship creates a component of social networking that facilitates support

systems that are essential to their culture. This is especially apparent in the growing

elderly population, as they are the most invested and devoted members of the

community. They are referred to as the "treasurehouse of wisdom" because of their

knowledge from lived experiences and long standing ties to the community[9]. Their

value of kinship is fundamental to their way of life and could be used to help them

cope with disasters, since communication is a key aspect of both relationships and

disaster resilience.

Communities can better prepare for and respond to emergencies if they have

sources of reliable communication[10]. It is a key component to informed decision

making during disasters. There is a trend towards reliance on technology and the

media for receiving health information and education[11]. Many areas of rural

Appalachia do not have reliable access to technology, cell phone service, and power. This

produces an apparent deficient in their communication abilities, which could negatively

impact their disaster resilience. This topic needs to be further explored to see how residents have adapted to this and communicate effectively in times of need. This exploration will help inform outside resources to the current status of what needs still exist in the community related to communication during disasters.

The literature and additional experiences in the community led to the formation of the research question. The investigators wanted to explore the lived experiences of elderly individuals on the topics of coping with disaster, communication during disaster, and their social support systems. This lead to the overarching question: Is kinship a resource for disaster resilience among elderly residents in rural Appalachia? This question was the guide for the methods of gathering and analyzing the data in this project.

Methods

Formation of the Research Question

My faculty advisor and myself, acting as the principal investigators in this study, were able to participate in a variety of experiences in rural Appalachia to inform the development of the research question. The University of Tennessee's *Appalachia Community Health and Disaster Readiness Interprofessional Collaborative Education Project* (UT Appalachia Project) funded by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Grant No. UD7HP26205, provided opportunities for me to engage in the community prior to formulating my research question. Through these interactions with members of the community, we were able to see the reality of the issues facing rural residents and identify kinship and disaster resilience as relevant topics for investigation.

The first opportunity for interacting with the members of the community was an education session on winter preparedness. This provided insight into the difficulties they face in the winter, but also revealed the coping methods that have developed over time. Members of the community expressed dealing with disasters through sharing information, resources, and other methods that have been passed down through the generations. This experience highlighted the need for increased education and support from outside resources for disaster resilience the community, making it a relevant topic of research. Members of the class were grateful for the new and applicable information presented, and the investigators also gained a better understanding of the way their society functions and works together during disasters.

Another interaction the investigator had with the community was through post-flood home assessments. The damage to the homes was examined and interviews were conducted to further understand the implications and effects of the flood on their lives. It was obvious that the effects of natural disasters like floods can have extensive damage to their homes and health, especially when not resolved in a timely manner. Residents still had mold and collapsed floors in their homes a year after the flood occurred. The damage was far-reaching and affected their health in many ways, which brought the investigators attention to the need for additional research on this topic towards improvement of disaster response from the community and outside resources.

This community involvement was essential for the investigators to help inform the selection of a relevant topic for investigation in research. The whole

experience was part of the learning process and helped guide the question. These

conversations not only proved further that there is a definite need for improvement

in disaster resilience in the community, but also showed that there are strengths of

relationship and communication that have formed unique methods of coping with

disaster that have been passed down through generations. These experiences

combined with what had been previously discovered in the literature about the

power of kinship, helped draw the connections that formed the research question

based on the exploration of the experiences of residents in coping with disaster,

communicating during disaster, and social support systems. These cultural

characteristics need to be further explored to fully understand their implications

and ability to improve disaster resilience in rural Appalachia.

Design

After selection of the question and development of the review of literature,

the research process started. The chosen method of data collection was a qualitative

focus group study of the lived experiences of elderly rural residents coping with

disasters. Qualitative design was more appropriate for the project as it is able to

capture a more human and relational understanding of the question. The ideas of

kinship and communication could not be effectively portrayed by numbers and

charts but will be more comprehensively understood through conversation and

explanation. According to Millward (2012), the goal of a focus group is to "capture

content in the form of understandings, perspectives, stories, discourse, and

experiences 'not otherwise meaningfully expressed by numbers'". This is an

appropriate method for discussion of the topics of kinship and disaster resilience.

Investigators chose focus group instead of interviewing because a group provided a broader scope of information, which is appropriate for this pilot study. It was valuable to be able to hear multiple perspectives at the same time, to provide a more diverse understanding, and showed how residents agreed and disagreed on certain subjects. The only disadvantage of a focus group as opposed to an interview was that the information was less detailed since people are less inclined to share personal information in a group setting. Regardless, a focus group was to be the most advantageous method of beginning to explore these topics and questions.

Instruments

A topic guide was developed to help guide focus group discussion. The main ideas were first explained by saying that the interest was gaining a preliminary understanding of how they cope with disasters and how their relationships affect how they respond to disasters. The discussion was regulated by the following leading and probing questions:

- What is the history of disasters in the area? What natural disasters have affected you and the people around you? How long have you lived in the area? Do you have any family who lives in the area?

- How did you cope with the disaster?

- How did you communicate during the disaster? When this happened, whom did you call first? Who did you call for help?

- If you had to evacuate, where did you go during a disaster? Who helped you evacuate?

- Does anyone call you if a storm is coming? Does anyone help you prepare for

   future disasters?

Specific question about family were not asked in the topic guide due to the

sensitivity of the subject. Asking personal questions in a group setting could

potentially make participants uncomfortable, so they were not directly addressed. It

was anticipated, however, that the natural flow of conversation would lead to

discussion about relationships, particularly familial, because of the cultural

significance. This method allowed participants to choose what information they

wanted to share instead of directly being asked about a potentially touchy subject.

Two recorders were used to allow transcription and accuracy of analysis of the data.

Field notes were also taken after the group to document other important

observations that were not picked up by the recorders. This helped with

organization and a more comprehensive understanding of the data for analysis and

making connections.

Population and Sample

The focus group participants were selected from a purposeful sample of

older rural residents of the area. Focus group samples "should be chosen to reflect

those segments of the population who will provide the most meaningful information

in relation to the project objectives"[12]. This population was chosen because they

have more experiences and knowledge to draw from. The majority of the

participants have lived in the area their whole life, which provides a longitudinal

perspective and they have broader networks and connections to the area to inform

the discussion. The focus group took place at a local non-profit senior citizens

center. This setting provided the individuals a comfortable setting to open up about

their experiences, since they spend a lot of time there and know the other members

of the group.

There are some criteria that fit individuals for exclusion from the study. If a

person was just visiting the area or if their health status did not permit them to

engage and participate in activities for about an hour, then they were excluded from

the study, because they would not be able to effectively participate and contribute to

the group discussion.

Limitations

The project was limited by the population of the participants. This was a pilot

study of a single nonrandomized group of elderly individuals from one senior

citizens center. This limited the diversity of the information, because they all share

similar experiences living in the same community at the same time. Another

possible disadvantage, due to the many years of experience and memories to draw

upon for information, was recall bias. "A potential for recall bias exists whenever

historical self-report information is elicited from respondents"[13]. They may have

discussed events that occurred early in their life, which lead to confused memories

and incorrect details. Despite these potential limitations, recruitment from the

senior population in that setting was a practical way to gain a preliminary

understanding into kinship factors. There is always a need for additional research,

opinions, and discussions to expand upon the data collected to provide more

comprehensive information. This group was able to provide meaningful insight and

was the best choice for this particular pilot study, because the purpose of the study

was to gain preliminary findings to guide further research on this topic.

Focus Group

      After gaining IRB approval, a trip was made to the senior center to meet with

the director of the center. We went on a tour of the center and set up a day and time

for the focus group that was most convenient for them. The principal investigators

were also able to meet with some of the potential participants to tell them about the

project and start the recruitment process. This meeting was beneficial in

establishing some rapport and helping the investigator know what to expect the day

of the actual focus group.

      Before the focus group began, all individuals present at the center were

asked if they would be willing to participate. It was made clear that individuals

knew their participation was completely voluntary and all volunteers signed an

informed consent document saying they did not have to answer questions they were

not comfortable asking and could leave the group at any time. There was a much

larger group of participants than expected, but it was culturally appropriate to allow

everyone to participate. This allowed for a variety of discussion and the group ran

smoothly. Participants were thanked and the investigators were invited back to

visit.

Transcription and Analysis

      The interviews were transcribed professionally. Due to the large number of

participants, it was difficult for the transcriber to understand sections of the focus

group. There were instances where individuals were talking at the same time or

there was too much background noise to understand what was being said. Field

notes were used to help fill in the gaps of information not picked up by the

recorders.

NVIVO 10 software was used to help code and analyze the information. Free

coding helped establish common ideas. These topics were then put into categories

so they could be understood with relation to each other. The codes were examined

for patterns, links, consensus of the group, and outliers to help organize the themes

relating to kinship and disaster resilience.

Results

The focus group conversation provided valuable insight into the reality of the

effects of disaster in this rural Appalachian community. The participants explained

the roles of community and family in disaster communication, preparedness, and

reliability. They also explained some kinship dynamics that were unexpected to the

investigators that should be explored in further research.

The emerging theme was establishing a more accurate understanding of the

effects of disaster on the lives of the community members. The group depicted real

worries of the danger from the severity of the winter months. One participant

stated, "We get ice, it's a real hazard. It's dangerous." They are aware of the reality of

the weather and its potential damaging effects. Ice and snow create hazards in many

parts of the country, but their situation is more concerning because of the amount of

time they can go without outside help. One participant said, referring to ice on the

roads, "if you get where the sun doesn't hit, it stays for a long time, days," and

another person explained, "It took a long time for them to finally get to that cause

they had to do the main roads, parkway, and stuff first but now they've gotten really

good about that. I feel sorry for the people though that are on roads that are off the

secondary roads cause nobody gets to them." These are important considerations

for responders to realize that some residents are stuck in their houses for days due

to the hazardous conditions. This increases the danger that they face and puts them

in a vulnerable state. Their location makes it more difficult for them to receive help,

which is something that needs to be addressed for the future. Aside from the roads

being too icy to drive on, one member of the group stated that from ice storms,

"we've been out 4 or 5 days without electric." This is something that rarely occurs in

an urban area, but they described it as a common occurrence. Not having electricity

can be dangerous because residents lose their heat source, and their food can spoil.

If they were not prepared for this type of disaster, they could be stuck in their house

for a week without heat or food in the middle of the winter—the effects of which

could be devastating. The reality facing residents is valuable to understanding the

importance of the subject and the need for more research in light of how they

respond and the roles of kinship in surviving these hardships.

　　　　Another subject that was important for understanding the context of the

community they live in is the help and support they already have access to. This was

essential for the investigators to be aware of the current state of living and their

comfort level with using resources inside and outside of the community. Residents

described the main lines of communication about disasters to be TV, radio, scanner,

and the weather channel, if they were working. One participant also stated, "we can

call 911 if we need anything" and "we have a helicopter service here." This showed

their confidence in these services and their trust in outside help and responders to

come to their aid if needed. One resident explained that in "the last three years it's

gotten better," which was encouraging for the investigators to see that there have

been positive changes in the community with regards to disaster response, which

will improve quality of health and life. Their current status still indicates a need for

improved response and continued understanding of how they can better cope with

disasters. The community has created resources for itself and for helping those

around them. The participants described a community store that sells "mittens and

hats and scarves and things like that for a reasonable amount." This is for

community members who need additional support providing for their families. This

shows how they work together to help each other and create a sense of community

cohesion and supports the hypothesis of kinship being an important factor in

disaster resilience.

The participants described themselves as "survivors" because they have

acquired the skills and knowledge to adapt and cope with the severe effects of

disaster over time. They explained, "everybody knows what to do," and they just "let

everybody take care of theirselves" in times of need. Over the years, they have

learned how and when to prepare for and respond to bad weather and potential

disasters. One group member explained the process by saying that when her

daughter called to help she told her, "We got a grill that we cook on outside. We've

got plenty of firewood. We've you know as backup if your lights go out. We've got, I

got thing of water in the freezer that I could thaw if we really needed water. And she

doesn't understand that you know that people are pretty self-sufficient." The

community members are confident in their ability to survive and adapt with the

severe weather and decreased access to resources, because they have been dealing

with it for years. It is their norm. They know better than anyone how and when to

start "buying extra" and "store it up" because they have experienced it many times.

This seemingly vulnerable elderly population does not view themselves that way.

They know that they are capable of handling the hardships of rural life in the severe

winter months. One of the ladies even said when they are cooped up they "always

find something to do" like "knit, crochet, quilt" to "keep you busy all winter." This

way of life is all they have known, and their confidence in their ability to be self-

sufficient is key to how they cope and adapt to these harsher situations.

The residents of rural Appalachia are self-sufficient, but a large part of their

resilience in times of need is their ability to work together as a community. No

matter how much they individually prepare, disaster response is more effective with

everyone working together. One participant described a situation where a lady "had

a little heater that run on gas and all the ladies that lived in the apartment went to

her apartment." She welcomed them in, knowing she had a heat source they needed,

despite the inconvenience it probably caused her. They have a mutual

understanding that they will help each other. Members of the group described

"that's jus the way people are in this part of the country." They are all looking out for

each other and know they can count on each other if needed. This shows how much

they rely on their community value of kinship and the important resource it is in

disaster resilience. Despite their self-sufficiency, when there is need they can "go to

their parent's house when they had heat gone" or "go to the neighbors and get

water." There is a sense of mutual understanding that they all support each other,

which is extremely valuable, especially in times of need.

There was also much discussion on the role of communication and

relationships, as it related to disaster resilience. The residents described that

although sometimes "cell phones are useless around here," this does not keep them

from reaching out to each other. Participants were in agreement that it is important

to stay in touch with family members in spite of that barrier. One participant

explained, "I've got brothers and sisters that check on me all the time." Many others

echoed similar remarks, confirming that they have true confidence they will

maintain contact with family members, especially in times of need. Consistent,

reliable communication is a key element in strong interpersonal relationships. Even

when the phone lines are out, one participant said, "I have to walk to my daughter's

house." They do not let the lack of technological resources keep them from staying

in touch and making sure their family members are all right. One participant

assured the investigators that, "most people take care of their own children." The

cultural emphasis on family values, which was found in the literature, was evident

and supported in the description of their communication methods during disasters.

The importance of relationships is not just found in families, but is a common

understanding for the community as a whole. One participant stated that if someone

were in need of food or clothes, they would, "make sure they get it" because "there's

no cause for anybody to go hungry." There is a strong emphasis on taking care of

and watching out for your family primarily, but they all agree that they would come

to the aid of any community member in need. This supports the findings in the literature that there are strong community kinship bonds that are central to their wellbeing. They kept mentioning how they were "trying to help" everyone that they could. The elderly generation seems to be a source of support and resource for the younger generation and they are always working to help them, especially in times of need. This shows that relationships are an important aspect of their community social structure.

In this same way, the conversation kept relaying the concept of the reliability of their relationships. They can all count on each other, especially in times of need. One participant stated, "if somebody needs us, we're there for em," and "if somebody gets hurt or somebody gets sick, you can call on anybody really." Most communities, especially in urban areas, do not have this sense of connectedness and reliability. They explained there is a sense of mutual understanding because "we know everybody around us" and "we've raised our families here." There is such a strong sense of community cohesion that they all feel like family look out for each other. Participants described their community as "close and tight" because "everybody's in the same boat so everybody understands." This supports the unique cultural aspect of their value of kinship found in the literature. Their strong interpersonal relationships and unique experiences have created these bonds of reciprocity and loyalty. Their relationships are long lasting and deep rooted which has formed trust, and they all know that they will be there for each other no matter what. This reveals the importance of being able to rely on each other in times of need to effectively cope with disasters.

The older generation has developed characteristics and habits based on their upbringing. They learned at an early age from their parents and through personal experiences how to effectively deal with disasters the way that they do. They were raised to know how to deal with the hardships of their location and economic situation, and one participant even laughed and said "oh honey, I learned that when I was 12 years old." They understood from an early age that they had to work hard and be self-sufficient to adapt and survive in these harder circumstances. This prepared them for their future, and they still continue to use that knowledge. They learned from their parents that "if you work in the summer, you put away from the winter" and many other important lessons. That information that was passed down through generations is invaluable and a core characteristic of their identity. It explains why they are generally so self-sufficient and able to cope with and adapt to their environment. Their inter-generational relationships are a key aspect of their culture and are essential to their survival through the methods of preparation and reliability they shared earlier in the discussion.

On the other hand, the investigators were surprised to hear, that participants believe the younger generation is not as prepared for dealing with the rural Appalachian way of life. The investigators assumed that the older generation would be more vulnerable due to age-associated risks. We believed that the younger generation would be supporting them now, but this was not always the case. For some, the opposite is true. The group described the reverse caregiver roles that are currently in place in the community. Many participants stated that the younger generation, "don't know how to plan ahead" because "they have somebody to take

care of 'em so they don't care." They explained that, "they'll just end up going to granny's house you know and eating at granny's house and stretching the food." Participants' perception of the younger generation was that they have grown up relying on their parents and grandparents. They have not learned the same way the older generation did, and now the older generation is realizing the younger generation "can't manage" and "aren't with it on that aspect," with regards to planning ahead and preparedness, which are essential to coping with rural Appalachian life. Participants worried that the younger generations are not equipped for survival in this lifestyle. This increases the burden on the older generation, as they are not only taking care of themselves but also their children and grandchildren. This was an interesting new idea that the investigators think needs further research, as it is a complex familial dynamic that is completely different from the previous generation.

The reverse caregiver role has created a new sense of worry for the older generation, as they realize that they will not be able to support the younger generation forever. They feel that many of their children and grandchildren are not prepared to live and adapt with the circumstances without them. They worry because "they don't know how to get by." The values of preparation, reliability, and self-sufficiency that the older generation learned from their parents have not been passed down to the younger generation. For the older generations, this has always been the way of life. They have to effectively cope with disasters despite the lack of resources and funds in the rural area. Many participants expressed concern that they "worry about the kids" and "wonder what they're going to do" since the

younger generation has not developed those characteristics. This reverse caregiver

role is a unique and new aspect of their culture that needs to be further explored.

For the younger generation, there could be devastating consequences for the if they

are not able to learn to cope with the realities of their circumstances. One

participant stated, "there's too much out there for em if they'll just all they got to do

it take of it." In other words, they have given them so much and they have so many

opportunities, but they are afraid that they will not take advantage of what they

could have. The older generation wants the best for their children and

grandchildren and they see their potential, but they know that it is up to them to

take hold of it.

Discussion and Conclusion

This study was a pilot project to begin exploring the themes of kinship and its

relationship to disaster resilience in the rural Appalachian community. The goal was

to examine these connections that lead the investigators to relevant questions and

discoveries for guiding further research. The data collected supported the

hypothesis that since relationships are integral in many aspects of their culture, they

would also be a key component in how they cope with disasters. Participants

described their dependence on the community as a resource and cohesion in

working together for survival in hard times. This is important for public health and

outside responders to understand these cultural characteristics to guide how they

communicate with and support these residents. They need to consider their

strengths and deficits to fully understand the changes that need to be made to

improve disaster resilience.

There were some unexpected results that need to be further researched to understand their implications for the future health of community members. The reverse caregiver role is increasing the elderly's perception of their burden both physically and emotionally. The older generation believes the younger generation is not prepared to deal with the complex current hardships they are facing, which could have negative impacts on the overall health of the rural Appalachian communities in the future. More research needs to be done to provide a more comprehensive understanding of these roles so public health officials, health care providers, and disaster response can understand what education needs to be done and what changes need to be made to relieve the burden on the elderly and prepare the younger generation for the future.

References

[1]Batteau, A. (1982). Mosbys and broomsedge: the semantics of class in an

Appalachian kinship system. *American Ethnologist,* 9(3), 445-466.

[2]United States Bureau of Labor Statistics. (2015). *Local Area Unemployment Statistics*

Map. Retrieved from: http://data.bls.gov/map/MapToolServlet

[3]Appalachian Regional Commission (2012). *Socioeconomic Data: Clay County,*

Kentucky (Data file). Retrieved from

http://www.arc.gov/reports/socio_report.asp

[4]Centers for Disease Control and Prevention (CDC). (2012). *Chronic Disease*

Indicators: State/Area Profile: Kentucky compared with United States. Data set.

Retrieved from http://apps.nccd.cdc.gov

[5]Caldwell, D. R. (2007). Bloodroot: life stories of nurse practitioners in rural

Appalachia. *J Holist Nurs, 25*(2), 73-79; discussion 80. doi:

10.1177/0898010106293610.

[6]Federal Emergency Management Agency (FEMA). (2014). *Disaster Declarations for*

Kentucky. Retrieved from http://fema.gov/disasters/grid/state-tribal-

government/49

[7]Presley, C. (2013). Cultural Awareness: Enhancing Clinical Experiences in Rural

Appalachia. *Nurse Educator, 38*(5), 223-226. doi:

10.1097/NNE.0b013e3182a0e556.

[8]Burton, L. M., et al. (2013). "Inequality, family processes, and health in the "new"

rural America." *American Behavioral Scientist* 57(8), 1128-1151.

[9]Suar, D., Mishra, S., Khuntia, R. (2007). Placing age differences in the context of the
   Orissa supercyclone: Who experiences psychological distress? *Asian Journal of
   Social Psychology* 10 (2), 117-122.

[10]Rowel, R., Sheikhattari, P., Barber, T. M., & Evans-Holland, M. (2012). Introduction of
   a guide to enhance risk communication among low-income and minority
   populations: a grassroots community engagement approach. *Health Promot Pract,
   13*(1), 124-132. doi: 10.1177/1524839910390312.

[11]Paek, H. J., Reber, B. H., & Lariscy, R. W. (2011). Roles of interpersonal and media
   socialization agents in adolescent self-reported health literacy: a health
   socialization perspective. *Health Educ Res,* 26(1), 131-149

[12]Millward, L. (2012). Focus Groups. In *Research Methods in Psychology* (part three).
   4th edition. SAGE publications.

[13]Raphael, K. (1987). Recall Bias: A Proposal for Assessment and Control.
   International Journal of Epidemiology, 16(2), 167-170.