ABSTRACT

Parental Health Knowledge and the Church: Tools to Improve Child Health in Brazil

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Children’s health is a primary global issue because it serves as the basis for future health outcomes and contributes to a person's productivity and economic contribution. Health knowledge of parents, or more specifically of mothers, contributes to children's health. The purpose of this pilot study was to explore health-related issues among parents in two underserved communities in the state of Espirito Santo, Brazil. This study was conducted as part of a Baylor University partnership with Brazilian Baptist churches whose leaders are interested in promoting health in their neighborhoods. Study participants (n=33) completed a written survey designed to measure age, education, number of children, and primary source for health information. The participants also engaged in one of three focus groups through which three basic questions were used to explore parental perceptions about children's health and future health education. Results from survey response frequencies and percentages were compared to focus group outcomes, and used to understand primary health issues faced by the studied communities.

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PARENTAL HEALTH KNOWLEDGE AND THE CHURCH: TOOLS TO IMPROVE CHILD HEALTH IN BRAZIL

A Thesis Submitted to the Faculty of

Baylor University

In Partial Fulfillment of the Requirements for the

Honors Program

By

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Waco, Texas

May 2015

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ACKNOWLEDGEMENTS

The completion of this thesis involved the help and support of multiple individuals. I am very grateful to have had Dr. Eva Doyle as my mentor on this project. She has blessed me with endless encouragement, patience, and advisement throughout the entire duration of this paper, and I could not have done it without her support.

I would also like to thank my research team, Brazilian and American, for their help in collecting data, translating, and compiling data. Their help made my first experience with research very smooth, and the data they helped collect was absolutely vital to this research.

Finally, I would like to thank my friends and family for their continuous support throughout this process. I am so grateful that my parents encouraged me to take an intimidating trip to Brazil that would end up not only providing the research for this project, but would also help in shaping who I am today.

Muito obrigada!

CHAPTER ONE

Introduction and Literature Review

This chapter contains an overview of the literature related to children's health, as well as some issues faced by urban children, and a brief introduction to the Brazilian healthcare system. Factors that contribute to a child's health stem from both social and biological origins, however this paper will focus on the socio-ecological factors. There are also sources that can aid in children's health, including parents, the community, and the church.

Social Determinants and Child Health

It is a well-known fact in the global health field that child health is very important as it contributes to abilities to learn and levels of productivity; and has been shown to have effects extending into adulthood (National Research Council, 2004). Because it is so important for children to have good health, it is also necessary to understand what contributes to child health and what harms it. Additionally, it is necessary to know the issues that currently exist in global efforts to promote and improve children's health.

The socio-ecological model of health (McLeroy, Bebeau, Steckler, & Glanz, 1988) works off of the idea that issues that affect the whole community should not be addressed through individual focuses, and that health is determined by influences at multiple levels (American College Health Association, 2012). The socio-ecological model has been adapted by the World Health Organization (WHO) to address community health issues by breaking the issues down to different levels. The first level is the

individual level, which includes biological factors and social history that significantly affect the individual. The second level is the relationship level, which looks at the individual's relationships between family and friends. The third level is the community, which looks at the settings that the individual encounters social relationships in, such as school, the workplace, and neighborhoods. The fourth and final level is the society, which includes the broad societal factors that influence the individual (Dahlberg & Krug, 2002). It is important to understand the different levels of factors that create health determinants not only to understand the basis for health issues, but also to understand that health is often influenced by factors outside of the individual's control (WHO, 2015).

Some health determinants are more significant for children than for adults. Charmarbagwala (2004) found that some of the more statistically significant determinants of child health included household income, parental health knowledge, and the availability of clean water and sanitation. An interesting discovery in this study was that parental education was less important when controlled for by health knowledge. That is, education level was less influential if the parent had sufficient health knowledge (Charmarbagwala, Ranger, Waddington, & White, 2004). Children are especially vulnerable to the effects of adverse socioeconomic status and poverty, so an understanding of health determinants is essential for addressing issues in child health (Spencer, 2003).

Parents

One of the biggest factors that affects children's health is their parents (Wilkinson & Marmot, 2003). Studies have shown that insufficient emotional attachment between children and their parents can lead to poor outcomes including reduced readiness for

school, low educational attainment, and problem behavior, whereas good parental examples were found to be associated with good child health behaviors (Wilkinson & Marmot, 2003). It is necessary that this social framework be created early in childhood because poor emotional support early on increases the risk of later having poor physical health and reduced cognitive functioning (Wilkinson & Marmot, 2003),

Parents' health knowledge, which is typically an extension of their level of education, is another factor frequently noted to influence child health (Aslam & Kingdon, 2010). Increased parental health literacy leads to better child health outcomes because the parents are more likely to make better decisions that are directly and indirectly related to child health (DeWalt & Kink, 2007).

Because mothers are typically responsible for raising children, the global health community looks to a mother's education as a factor that strongly influences child health (Skolnik, 2012). It is commonly understood that increased education of mothers leads to better care, and therefore better health, of children (Skolnik, 2012; Aslam & Kingdon, 2012). It is for this reason that empowering women to be educated is so important, as it can directly affect the health of their children or future children.

Community

Another source of influence on child health is the community. The community can create support for families in obtaining healthcare or aid in providing information outside of the healthcare system. As indicated in a recent report by the United Nation's Children Fund (UNICEF, 2007), the community can aid to "reduce and eventually eliminate profound disconnections between knowledge, policy and action" (p. 45). Just as mothers' education is targeted to aid in increasing child health, communities are targeted

for means to improve child health: “Empowering communities and households to participate in the health care and nutrition of mothers, newborns and children is a logical way of enhancing the provision of care, especially in countries and communities where basic primary health care and environmental services are lacking” (UNICEF, 2007, p. 45). Additionally, it has been found that community awareness is effective in improving the health and survival of newborns (Skolnik, 2012).

C*hurch*

One extension of the community that can aid in child health is the church. In many settings, the local church is an integral part of the community and can be a place that the community already trusts for information (DeHaven, Hunter, Wilder, Walton, & Berry, 2004). Creating health programs through churches is not a new idea, and it has been found that these programs can actually improve health outcomes (DeHaven, et al., 2004). This can be accomplished through preventative health education, health fairs, and continuous health education. Success of church-based health education is also based on the church’s historical ability to pull the community together, to motivate and to inspire (Kaplan, Calman, Golub, Ruddock, & Billings, 2006). Thus the church is a good source for implementing health programs in the community that can have positive effects on children’s health.

Child Health Issues in Underserved, Urban Communities

Though there are groups that can be targeted to aid in improving child health, there are ultimately issues that must be faced. Underserved neighborhoods of urban communities have been identified as important priority populations for promoting child health, as the communities often do not have adequate support for raising healthy

children (Brotman et al., 2011). Some primary child health issues that have been identified in these urban populations are nutrition, exercise, health literacy and health knowledge.

Nutrition and Exercise

One of the major issues facing urban children is nutrition: eating the right types of foods and the right quantities of food. Nutrition is very important for all ages, but especially for children, as it is necessary in ensuring proper growth, health and development (WHO, 2009). Not only is good nutrition necessary, but inappropriate nutrition can increase a child's propensity for obesity (WHO, 2009).

A related issue for urban children is exercise. Exercise is an important component of children's health as it contributes to physical health as well as to cognition and behavior (Best, 2010). Additionally, a study conducted by researchers at the University of Florida found that adolescents who participated in high-frequency levels of vigorous physical activity were less likely to engage in health risk behaviors, and were more likely to take part in health promoting behaviors, including eating well and abstaining from drugs (Delisle, Werch, Wong, Bian, & Weiler, 2010).

Health Literacy and Knowledge

Another issue in underserved urban communities is health literacy, which is an individual's ability to obtain, process, and understand health information (Zahnd, Scaife, & Francis, 2009). This is a very important asset for both parents and children to have in order to make the best medical and health decisions.

Health knowledge has been shown to be directly affected by health literacy, meaning that a person with lower health literacy is less likely to have certain health

knowledge (Miller, Brownlee, McCoy, & Pignone, 2007). This makes sense since a person needs to be able to understand certain aspects of health in order to retain that information as knowledge. However, even if a community generally has health literacy, it could still have an issue with accessing health knowledge.

Child Health in Brazil

The World Health Organization, the United Nations Children's Fund, and many other organizations have worked in unison with the United Nations to create Millennium Development Goals. One of the goals was aimed at improving child health (United Nations, 2011). This goal built by the United Nations created guidelines and recommendations that predominately focused on improving basic tenets of health, such as decreasing the under-five mortality rate and encouraging mothers to breastfeed. While these goals seem outdated to many Americans, a large portion of the world's population is still striving to meet these goals (WHO, 2014). Brazil is a very diverse country in terms of the dispersion of health. Yet overall, the country has seen a continued decline in the under-five mortality rate from having 51 deaths per 1,000 live births in 1990, to 12 deaths per 1,000 live births in 2013 (UNICEF, 2015). Additionally, over 90% of 1 year-old children are immunized against DPT, measles and polio (UNICEF, 2015). One area in need of improvement is nutrition. The country has seen a decrease in the prevalence of stunting (less than 10% in 2011), but this improvement has been paired with an increase in obesity (Victora et al., 2011). Additionally, Brazilian adolescents from lower-income groups have shown higher rates of obesity than adolescents from higher-income groups (Schmidt, 2011).

Child health has been an important component in efforts to reform healthcare in Brazil. Brazil experienced a healthcare reform in 1988, and it was through this reform that the idea of the universality of health services became a constitutional right (Elias, 2003). Brazil's healthcare system is called the Sistema Único de Saude (Unified Health System, SUS), and it provides free primary care, surgery, medication, and a Family Health Program (Gomez, 2012). The Family Health Program includes teams made of a physician, nurse, nurse assistant, and community health workers who are responsible for going home to home to provide health care (Reis, 2013). One central aspect of the Family Health Program is to provide preventative care through the community health workers who encourage health education and teach nutrition, healthy behavior and hygiene (Reis, 2013). Another key component of the program is decentralization. This component of the system is key because it allows healthcare to infiltrate hard-to-reach places such as the Amazon. The responsibility of management belongs to the country's 26 states and over 5000 municipal governments. This is helpful because it designates more power to local communities for creating budgets (WHO, 2010).

Despite all the progress of the SUS, the program is not without shortcomings. The current healthcare system has evolved into two divisions: the liberal, private practice side that operates through the market, and the government-run, institutional side that is delivered through public hospitals and clinics (Elias, 2003). This has come about because, just as with any universal plan, seeking immediate care can be challenging. Thus individuals (14.4% of the population as of 2005) have chosen to purchase private insurance for more immediate care and for more choices in providers (Gomez, 2012).

Fortunately, the Family Health Program has positively affected children in Brazil. Data has shown that since the induction of the program, children who used the program have been healthier than children who did not (Reis, 2013). Additionally, the program has led to an associated 4.5 percentage increase in school enrollment of children between 10 and 17, which is a positive health determinant (Rocha & Soares, 2009). Brazil also has national programs to target specific issues facing children, such as obesity (Silva et al., 2013).

Despite this progress and aid through the Family Health Program, there is still a need to address and improve the state of child health in Brazil. One way this can be accomplished is by targeting parents, and equipping them with proper health knowledge. This can be done through the community, or more specifically, through churches. Therefore, we need to work with and utilize Brazilian parents, through churches, to promote child health.

CHAPTER TWO

Methods

A qualitative approach was used in this study. Three groups of parents in three urban neighborhood churches in southeast Brazil participated in the study. For each group, data collection included a questionnaire followed by a focus group, both of which focused on child health. This chapter contains a description of methods used to recruit participants, develop a survey instrument and focus group protocol, collect data, and analyze findings.

Participant Recruitment

A convenience sample of Brazilian mothers was recruited to participate in a focus group conducted in one of three Brazilian Baptist churches. These three churches were located in the State of Espirito Santo, Brazil. In each church, a church leader made announcements about the study purpose and procedures, and an invitation to voluntarily participate, during Sunday morning pre-service announcements. All adult mothers in each partnering church were invited to participate. The mothers were encouraged to allow their children to participate in a children's church activity, which freed the mothers to participate in the focus group.

Instrumentation

A 2-page questionnaire (see appendix) that contained 23 items was developed. Questions 1-13 focused on demographic information about marital status, age, education level, years married, number and ages of children, number of grandchildren (if any),

whether they lived with their grandchildren (if applicable), and for how long they had lived in the targeted geographic area. Questions 14 and 15 were designed to identify sources of, and levels of satisfaction with advice about how to promote their children's health. The final four questionnaire items were open-ended questions designed to motivate thinking about the kinds of information that would be discussed in the follow-up focus group: *What kinds of things do you often do to help keep your children healthy?, What is the most important thing you have learned that helps you keep your children healthy?, What do you wish you knew more about that could help you keep your children healthy?, How can your church help mothers keep their children healthy?*

Focus groups were conducted using a *guided group interview* approach. As part of the guided group interview (Doyle, 2001), a series of open-ended questions were developed prior to the event. This series of questions was presented to the group in sequence to frame the group discussion. An interview guide was developed for use by the focus group leaders to ensure that participants received information about informed consent and confidentiality, the purpose of the focus group, and some general guidelines about the process. The interview guide was also designed to enable participants to discuss each question in a sequence that allowed them to effectively process their thoughts and recommendations.

The interview guide contained instructions for the group leader on how to welcome participants, overview the study, obtain information consent, implement/obtain completed written questionnaires, and implement the group interview. It also contained a large number of questions framed by the PRECEDE-PROCEED model (Doyle & Ward, 2001) designed to foster discussion with community partners about the needed focus.

Based on partner input, the team decided to use a more "service oriented" approach to the guided interview questions. The revised plan included 3 basic questions that would be adapted as needed during the flow of each focus group:

1. What do you do that helps you to keep your children healthy?
2. What do you wish you knew more about that you think could help you keep your children healthy?
3. What could the church potentially do in the future to help you keep your children healthy?

Back translation (Doyle & Ward, 2001) was used to develop language-equivalent versions in Brazilian Portuguese of the questionnaire and interview guide. In this process, a translator translated the English versions to Brazilian Portuguese. A second translator then translated the resulting Portuguese versions back to English without having seen the original English versions. The two English versions were compared to ensure that equivalent meaning existed in the two English versions. The research and translation team agreed that meaning equivalences existed for all components, which validated the Portuguese versions as containing intended, equivalent meanings.

Data Collection

Data collection occurred in two steps in each of the three churches: (1) distribution of a written questionnaire and consent form for individual completion by study participants and (2) a follow-up focus group of volunteer participants. Volunteer participants were invited to participate in both phases, but were informed that they may participate in only one phase if they preferred.

Questionnaire

At the beginning of each focus group session, the research team, with help from trained interpreters, welcomed the volunteer participants, explained the purpose and

planned procedures of the focus group, distributed and covered the consent form, and waited for participants to either sign the form or leave prior to the beginning of the focus group. Those who volunteered to stay and participate received the written questionnaire and were given time to complete it. As the participants turned in their completed questionnaires, they were again reminded that they could leave at that point and not participate in the focus group. Those who chose to remain became focus group participants.

Focus Group

In each focus group, the focus group leader (*leader*) explained to the participants the purpose and anticipated benefits of the focus group. Confidentiality and other consent form information were covered. The leader also told the participants that the discussion would be recorded so that the research team could listen to the discussion later, an observer would be taking notes in English for later reference, and two large easel pads visible to the group would be used to summarize group responses and ensure that the group agreed with the summaries.

The leader and interpreter worked as a team to pose the guided questions and record and validate group responses. Each question was posed in English by the leader and then presented to the group in Portuguese by the interpreter. The interpreter interpreted group responses back into English. The leader and interpreter briefly discussed the responses and wrote summarized response phrases on the large easel pads in Portuguese (easel pad 1) and English (easel pad 2). The participants were asked to revise as needed and validate the written responses as the discussion progressed, and again at the end of the focus group.

Data Analysis

Data obtained from the written questionnaires and the focus groups were formatted and analyzed. Methods used are described below.

Questionnaires

Questionnaire responses were entered into an excel file for analysis and were used to generate group response frequencies and percentages for fixed questions that involved numbers and scales. The open-ended question responses were entered into a spreadsheet to identify emerging themes. Demographics questions (e.g., age, marital status, number/age of children) were used to group and compare responses by subcategories. Emerging themes from the open-ended questions were compared to grouped responses that emerged from the follow-up group interview, with any emerging differences and commonalities between the two data sets noted.

Focus Groups

The triangulation approach to data collection used in the focus groups generated data from three sources: audio recordings of group discussions, written observations of the discussion process noted by a research team observer, and the group-validated summaries of group responses written on the large easel pads. The English components of the audio recordings were transcribed and studied for emerging themes. These emerging themes were categorized in a table and compared to the table of the questionnaire.

CHAPTER THREE

Results

This chapter contains three sections that include summaries of participant demographics, survey responses, and focus group results. In each section, findings are reported for each participant group and as a total for all study participants.

Participant Demographics

In the state of Espirito Santo in Brazil, we collected data from mothers from three different communities on what they do to take care of the health of their children. The first church we worked with was located outside a major city. There were 15 women in this group. The second group included 10 women and the community was located near a coastal community. The third group included 8 women and was also located in a coastal community. The data were collected for each group and then averaged, when applicable, for each community (labeled G1, G2 and G3). These group averages were then averaged to give a combined average.

Demographics presented in Tables 1 and 2 contain overviews of demographics for each of the three groups and as a total participant group. A total 33 individuals participated in the study {Group 1 (G1, n=15), Group 2 (G2, n=10), or Group 3 (G3, n=8)}. The majority of the participants were female (88.2%) with only Group 1 including 3 male participants.

The mean age of the participants in all three communities was 35.1 years, with a range of 19 to 59 years old (G1=36.1, G2=35, G3=33.6). The majority of the participants

were married, 69.7%, while 9.1% of the participants were single having never been married, 9.1% were once married but are now divorced, and 9.1% were once married but now widowed. The mean number of years married was 11.8, with a range of 8 months to 30 years (G1=13.8, G2=11.3, G3=9.5). The mean number of children of each participant was 2, with a range of 1 to 5 children (G1=2.3, G2=2.1, G3=1.4). Participants had, on average, 2.9 children living with them at home, with a range of 0 to 4 children (G1=1.7, G2=1.5, G3=1.4). Of the participants present, 21.2% were grandmothers (G1=33%, G2=20%, G3=0%). These grandmothers had an average of 2.4 grandchildren, with a range of 0 to 11 grandchildren (G1=3.2, G2=1, G3=NR). In the first community, the participants had lived in their current city for an average of 19 years, while participants in the second group had lived in their city and average of 24.7 years, and an average of 24.5 years in the third community—thus the cumulative number participants had lived in their current, respective cities for an average of 22.1 years.

The majority of the participants received high school and even higher education. There were 8 participants who had less than an 8th grade education (G1=5, G2=2, G3=1), 11 mothers finished high school (G1=6, G2=2, G3=3), and 12 participants finished college or took some college courses (G1=3, G2=5, G3=4).

All three focus groups took place in a church setting, and participants were asked about their church attendance and involvement, see Table 3. From all three focus groups, 90.9% reported that they attend church (G1=93.3%, G2=100%, G3=75%). When the participants were asked if they were involved with church, 66.7% said yes (G1=66.7%, G2=60%, G3=75%).

Table 1: Participant Gender, Marital Status, Education Level, and Family Class								
Variable	**Group 1** (n=15)		**Group 2** (n=10)		**Group 3** (n=8)		**Total Group** (n=33)	
	n	%	n	%	n	%	N	%
Gender								
male	3	20.0%	0	0%	0	0.0%	3	9.0%
female	12	80.0%	10	100%	8	100.0%	30	91.0%
Marital status								
married	9	60.0%	7	70%	7	87.5%	23	69.7%
never married	2	13.3%	1	10%	0	0%	3	9.1%
divorced/separated	1	6.7%	1	10%	1	12.5%	3	9.1%
widowed	2	13.3%	1	10%	0	0.0%	3	9.1%
no response	1	6.7%	0	0.0%	0	0.0%	1	3.0%
Education level								
$\leq 7^{th}$ grade	5	33.3%	1	10%	0	0.0%	6	18.2%
$\geq 7^{th}$ grade	0	0.0%	1	10%	1	12.5%	2	6.1%
high school	6	40.0%	2	20%	3	37.5%	11	33.3%
college or more	3	20.0%	5	50%	4	50.0%	12	36.3%
no response	1	6.7%	1	10%	0	0.0%	2	6.0%
Family class								
parent	10	66.7%	7	70%	8	100.0%	25	75.8%
grandparent	4	26.7%	2	20%	0	0.0%	6	18.2%
No response	1	6.7%	1	10%	0	0.0%	2	6.0%

Table 2: Participant Age, Years Married, Children, Grandchildren, Years in Community												
Variable	**Group 1** (n=15)			**Group 2** (n=10)			**Group 3** (n=8)			**Total Group** (n=33)		
	*m**	*sd***	*range*	*m*	*sd*	*range*	*m*	*sd*	*range*	*m*	*sd*	*range*
age	36.1	11.9	21-59	35.0	11.2	19-53	33.6	8.3	23-48	35.1	10.6	19-59
years of marriage	13.8	6.8	5-30	11.3	6.1	4-20	9.5	8.5	.67-22	11.8	7.1	.66-30
#children (total)	2.3	1.2	1-5	2.1	.83	1-3	1.4	.52	1-2	2.0	1.0	1-5
#children at home	1.7	1.2	0-4	1.5	.93	0-3	1.4	.53	1-2	2.9	1.6	0-4
grand-children	4.0	4.1	1-11	1.5	0.5	1-2	NA	-	-	3.2	3.6	1-11
# years in community	9.0	10.9	1-37	24.7	14.4	8-48	24.5	10.8	3-34	22.1	12.0	2-48
m: group mean **sd: standard deviation ***nr: no response NA: not applicable												

Table 3: Church Involvement (item 19)								
Survey Item	**Group 1** (n=15)		**Group 2** (n=10)		**Group 3** (n=8)		**Total Group** (n=33)	
	#*	%	#	%	#	%	#	%
19a-Do you go to church?	14	93.3%	10	100.0%	6	75.0%	30	90.9%
19b-Are you involved in church	10	66.7%	6	60.0%	6	75.0%	22	66.7%

*#: frequency (number of positive responses)

Survey Responses

Responses to the survey completed by each individual participant prior to the focus group are reported below. The responses are organized into subsections that match specific survey items or groups of items.

Sources of Health Information

Participants were asked from whom they received their health information (allowing for multiple responses). From Table 4, the majority of the total participants (66.7%) indicated they get information about how to take care of their health of their children from a health professional. Less than a quarter of participants (15.2%), indicated that they receive information from a church leader. Other selected responses included receiving information from their mother (12.1%), friend (12.1%), and/or mother-in-law (3%). A small percentage (6.1%) responded with "none. Three participants (9.1%) indicated they received information from another source and wrote in their church pastor's name (from Group 1) and their godmother and sister (Group 2).

Table 4: Sources of Health Information (item 14)

Response Choice	**Group 1** (n=15)		**Group 2** (n=10)		**Group 3** (n=8)		**Total Group** (n=33)	
	#*	%	#	%	#	%	#	%
none	2	13.3%	-	-	-	-	2	6.1%
mom	4	26.7%	4	40%	6	75.0%	4	12.1%
mom-in-law	-	-	1	10%	-	-	1	3.0%
health professional	8	53.3%	7	70%	7	87.5%	22	66.7%
church leader	3	20.0%	1	10%	1	12.5%	5	15.2%
other	1	6.7%	2	20%	-	-	3	9.1%

*#: frequency (number of responses)

From Tables 5 and 6, the participants' levels of satisfaction with sources of health information. None of the participants responded with *not sure/don't know* or *not satisfied at all*. Some participants did not respond (21.2%) and were not included in the data presented in Table 6. On a scale of 0 to 4, the average level of satisfaction was 3.4 (sd=0.63, n=26) for the total group (G1: 3.5, sd=0.82, n=11; G2: 3.5, sd=0.53, n=10; G3: 3.3, sd=0.49, n=8) (see Table 6). None of the participants reported a level of 0 or 1. Only a participant from Group 1 reported a satisfaction level of 2 with 6.1%. The majority of the participants chose a satisfaction level of 3 (33.3%) and level 4 (39.4%).

Table 5. Satisfaction with Health Information Sources (item 15): *Frequencies*

Satisfaction Level	Group 1 n=15		Group 2 n=10		Group 3 n=8		TOTAL n=33	
	#*	%	#	%	#	%	#	%
0-not sure/don't know	0	0.0%	0	0%	0	0.0%	**0**	**0.0%**
1- not satisfied at all	0	0.0%	0	0%	0	0.0%	**0**	**0.0%**
2- a little satisfied	2	13.3%	0	0%	0	0.0%	**2**	**6.1%**
3- mostly satisfied	2	13.3%	4	40%	5	62.5%	**11**	**33.3%**
4-very satisfied	7	46.7%	4	40%	2	25.0%	**13**	**39.4%**
no response	4	26.7%	2	20%	1	13.5%	**7**	**21.2%**

*#: frequency (number of responses)

Table 6. Satisfaction with Health Information Sources (item 15): *Mean, Standard Deviation*

Group	N*	M	SD	RANGE
Group 1	11	3.5	0.82	2-4
Group 2	8	3.5	0.53	3-4
Group 3	7	3.3	0.49	3-4
TOTAL	26	3.4	0.63	2-4

*N:: number of respondents M: group mean, SD: standard deviation, Range: response range (possible range: 1-4)

Child Illness and Healthcare Resources

In Table 7, the results are provided as they relate to three survey questions (items 17 and 18). When asked about having a personal doctor or nurse (item 17), less than half of the participants from Group 1 (40%) and 50% of Group 2 said yes (50%). The majority of participants in Group 3 answered yes (87.5%). When asked about having a specific location where they usually go for health care (item 18), all (100%) participants in all three groups indicated that they had a specific location.

Table 7 Personal Doctor/Nurse and Primary Health Care Location (items 17 and 18)

Survey Item	**Group 1 n=15**		**Group 2 n=10**		**Group 3 n=8**		**TOTAL n=33**	
	#*	%**	#	%	#	%	**#**	**%**
17- Have personal doctor/nurse?	6	40.0%	4	50.0%	7	87.5%	**17**	**51.5%**
18- Have specific location?	15	100.0%	10	100.0%	8	100.0%	**33**	**100.0%**

*#: frequency (number of responses) **% of total group

Table 8 contains response frequencies and frequency percentages to question 16: *How many times per year does your child get sick?* All three groups indicated that the majority of their children usually get sick 1-3 times a year (G1: 12, 90%; G2=6, 60%; G3=7, 87.5%). One respondent in Group 2 indicated their child gets sick 4 times a year (13.3%). One participant in Groups 1 and 3 and four participants in Group 2 did not respond to this question.

Table 8. Sickness Frequency (item 16)								
Frequency (times per year)	**Group 1 n=15**		**Group 2 n=10**		**Group 3 n=8**		**TOTAL*** n=33**	
	#*	%**	total	%	total	%	**total**	**%**
0	0	0.0%	0	0.0%	0	0.0%	**0**	**0.0%**
1-3	12	80.0%	6	60%	7	87.5%	**25**	**75.8%**
4-6	2	13.3%	0	0.0%	0	0.0%	**2**	**6.0%**
7 or more	0	0.0%	0	0.0%	0	0.0%	**0**	**0.0%**
no response	1	6.7%	4	40%	1	12.5%	**6**	**18.2%**
*#: frequency (number of responses) **% of total group								

Open-Ended Questions

The individual responses and resulting response themes generated through the three open-ended questions are provided and discussed below. The open-ended questions allowed the researchers to investigate the kinds of things the participants often did (survey item 20, Table 9), the most important things they had learned (item 21, Table 10), what they wish they knew more about (item 22, Table 11), and how the church can help (item 23, Table 12) to keep their children healthy.

Things You Do to Keep Children Healthy (item 20)

Table 9 contains responses categorized within emerging themes for the kinds of things participants indicated that they do to keep their children healthy. The greatest number of responses across all groups related to nutrition or healthy eating. The majority of the participants who wrote about nutrition wrote broad statements that included references to *healthy eating* (V2, V9, V11-12, M5-7, P1, P3-6) or providing the child with *nutrition* (M3-4) or *healthy food* (V3). Two participants (G3: P2, P7) indicated that they provided "breast milk" for their children. One participant (V4) provided a more

detailed response related to healthy eating: *Eat a lot of fruit, vegetables, natural juice; eat just a little bit of candy*.

Eight participants (V11, M3-6, P1, P3, P5) included hygiene in their lists of things they do to keep their children healthy. Four participants listed actions related to promoting spiritual health and love: *I bless my kids, ask them to pray in the mornings* (V1), *Taking care of him with love and praying and asking for help to our Lord* (M2), *spiritual education* (M6), *Loving them a lot* (V10). Regular and early sleep was listed by three participants (V4, M4, P1). Three participants mentioned taking their children to the doctor (M1, P1, P6) and one of those (M1) also mentioned vaccines.

Education was mentioned by three participants. Two of these three comments related to their own education/learning about parenting: *I watch programs/videos on Internet about babies* (V7), *I have learned a lot with her grandparents and my mother* (V14). The third participant talked about helping her children with their learning: *Help them with classes* (M8).

Three participants described steps taken to ensure the safety of their children by preventing them from walking barefoot and by watching them. Two of these three participants talked about making sure their children wore the right clothing to protect their children from environmental elements: *Don't walk barefoot, don't go out in the rain, don't stay without his/her shirt at night (*V8), *I put the right clothes; don't leave her barefoot* (P7). A third simply stated *I'm always watching* (P8).

Two participants indicated that conversation and time spent with their children were things they did to keep them healthy: *talk with kids, hang out together* (M8), *lots of*

conversations (P4). One participant described other types of personal involvement with her children: *I care about the schedule, meals and bedtime* (P7).

A few participants listed *physical activities* (V11), *good habits* (M7), and *entertainments* (P5) as part of what they do to keep their children healthy. Another indicated that, though her child did not live with her, she still took care of her: *I take care of my daughter but she doesn't live with me* (V14).

Table 9: Ways of Keeping Children Healthy

20-What kinds of things do you often do to help keep your children healthy?

Themes	*Group 1*	*Group 2*	*Group 3*
Nutrition	V2: Keeping a healthy eating way of life V3: feed my child with healthy food V4: Eat a lot of fruit, vegetables, natural juice; eat just a little bit of candy V9: Healthy eating V11: healthy eating V12: I help them to keep a healthy eating	M1: Eating healthy M3: Good nutrition, ideas for a healthy menu M4: nutrition M5: Healthy eating M6: Healthy eating M7: Healthy eating	P1: Healthy eating P2: Breast milk P3: Eating healthy P4: Eating healthy P5: Eating healthy P6: Eating healthy P7: give her breast milk
Hygiene	V11: Hygiene	M3: Hygiene M4: Personal hygiene M5: taking care of the hygiene M6: taking care of the hygiene	P1: take care of hygiene P3: Hygiene P5: Hygiene
Spiritual Health and Love	V1: I bless my kids, ask them to pray in the mornings V10: Loving them a lot	M2: Taking care of him with love and praying and asking for help to our Lord M6: spiritual education	
Healthcare		M1: Go to the doctor; vaccines	P1: take them to doctor regularly P6: going to the doctor regularly
Education	V7: I watch programs/videos on internet about babies V14: I have learned a lot with her grandparents and my mother	M8: Help them with classes	

Safety	V8: Don't walk barefoot, don't go out in the rain, don't stay without his/her shirt at night		P7: I put the right clothes; don't leave her barefoot P8: I'm always watching
Misc.	V11: Physical activities V14: I take care of my daughter but she doesn't live with me	M7: Good habits M8: talk with kids, hang out together	P4: Lots of conversations P5: Entertainment P7: I care about the schedule, meals and bedtime
Sleep	V4: sleep early	M4: Sleeping regularly (schedule)	P1: sleep regularly

Things You Have Learned (item 21)

Responses to what the parents know about keeping their children healthy are listed in Table 10. The majority of the participants responded they knew about nutrition. Six participants said they knew about healthy eating (V1, V11, V13, V14, M7, P5) and two participants knew about general nutrition (P3, P8). Other participants were more specific about the types of foods that are nutritious: *feeding my child with food without fats and vegetables* (V3), *reduce the amount of food my child is eating* (V4), *always give vitamins (V9), eating fruits and vegetables; juices directly from the fruits* (P6). Three participants knew about healthy schedules and habits (M1, M4, P6).

After nutrition, participants were most concerned with learning about teaching character building and love. Three participants talked about spending time with and loving their children: *spend time with him; dedication* (V13), *love them, treat them like treasures that the Lord trusted us to take care* (V15), *love and affection* (M8). Two participants were concerned with their children's spiritual and mental health (M2, M6). One participant was concerned with character building: *I help my child to not be afraid of anything and to make them face anything life has to offer* (V6).

Two participants said they knew about taking care of their children with parenting: *I take care of them and I try not to be a very strict parent* (V7), *prevention* (P1). Three participants said they know about keeping the hygiene of their children (M4, P4, P5). One participant said they know children should exercise (P3). Three participants said they know a lot about taking care of their children: *How to take care of my children; I believe I taught them well* (V8), *Take care of my child about everything* (M3), *a lot of things* (V10). One participant said they could not remember anything they know about taking care of their children (V12) and one said they know that giving breast milk is good (P7).

Table 10: Health Knowledge

21-What is the most important thing you have learned that helps you keep your children healthy?

Themes	*Group 1*	*Group 2*	*Group 3*
Nutrition	V1:Healthy eating helps to a healthy life V2: Only feeding them with the right types of food V3: Feeding my child with food without fat and vegetables V4: Reduce the amount of food my child is eating V9: Always give vitamins V11: Healthy eating V13: Healthy eating V14: Healthy eating	M1: My mom always took care about healthy habits. I learned a lot from her M4: Eating regularly (Schedule) M7: Healthy eating	P3: To take care about nutrition P5: Eating healthy P6: Eating regularly; eating fruits and vegetables; juices directly from the fruits (natural) P8: Guidelines about nutrition
Teaching/ Character Building/ Love	V6: I help my child to not be afraid of anything and to make them face anything life has to offer V13: Spend time with him; dedication V15: love them, treat them like treasures that the Lord trusted us to take care of	M2: Taking to them the right way, not to the wrong way M6: Mental healthy and spiritual health M8: Love and affection	

Regulation	V7: I take care of them and I try not to be a very strict parent		P1: Prevention
Misc.	V8: How to take care of my children; I believe I taught them well V10: A lot of things V12: I don't remember at the moment	M3: Take care of my child about everything M4: Personal hygiene	P3: Exercises (sports) P4: Hygiene P5: Keeping the hygiene P7: She still receives breast milk, which is very good

Things You Wish You Knew to Keep Children Healthy (item 22)

Participants stated what they wish they knew more about that could keep their children healthy (Table 11). Three participants wanted to know more about feeding their children and nutrition: *I wanna know what kind of food I can give to my child and how to put it on a schedule* (V7), *about what I can feed my child with since he/she has only 6 months (what kinds of foods)* V10), *nutrition for every age* (P5). One participant wanted to know how to keep their child from doing drugs (V2). One participant wanted to know more about how create limits for her children (V1).

Table 11: Health Education			
22-What do you wish you knew more about that could help you keep your children healthy?			
Themes	*Group 1*	*Group 2*	*Group 3*
Nutrition	V7: I wanna know what kind of food I can give to my child and how to put it on a schedule V10: About what I can feed my child with since he/she has only 6 months (what kinds of foods)		P5: Nutrition for every age
Regulation/ Control	V1: Talking about limits V2: I would like to learn how to remove my son from the drugs		

Things Church Can Do to Keep Children Healthy (item 23)

Most participants (90.9%) reported that they attend church, and 66.7% stated that they were involved with the church (Table 3). Table 12 contains responses to the open-ended question on the survey about what the church can do to help them keep their children healthy. These responses are categorized by emerging response themes.

As indicated in the table, the majority of the participants (10), wanted the church to help in the form of education, specifically in the form of presentations according to nine participants (V7, V8, V14, M1, M4, M5, M6, P4, P7). One participant wanted the church to give advice (M4), while another participant wanted the church to help with "learning more about nutrition; personal hygiene; hygiene during meal; keeping the house clean; sports for every age; entertainment" (P5).

After education, the participants most wanted the church to help with health advice. Two participants wanted the church to talk about health and give advice (M8, P3). One participant wanted the church to help with "advising about eating just a little bit of candy" (V4).

One participant wanted the church to help with accepting kids that are different (V3). Two participants said the church was already helping: one participant said the church already helps by "ministering us the Word of God" (V12) and another said "the church tries to help with it's bests and with what it's possible" (V2).

Two participants wanted the church to visit families: "to visit families regularly" (V13) and "I would like the Church to visit more families like mine" (M2). One participant said the church should help pregnant people (V15).

Table 12: The Church and Health			
23-How can your church help mothers keep their children healthy?			
Themes	*Group 1*	*Group 2*	*Group 3*
Education	V7: Creating a "support group" and preparing some presentations about kids' health V8: Presentations; more information V14: With presentations about various themes and topics	M1: Presentations M3: Giving advice M4: Presentations M5: Presentations with health professionals M6: Offering presentations about daily activities	P4: Presentation and visits P5: Learning more about nutrition; personal hygiene; hygiene during meal; keeping the house clean; sports for every age; entertainment P7: With presentations about various topics
Health advice	V4: advising about eating just a little bit of candy	M8: To talk; hints about health	P3: Giving advice
Acceptance	V3: Taking care of them, accepting the different kids		
Ministry	V12: the Church already helps a lot ministering us the Word of God; it blesses us a lot		
misc.	V2: The church tries to help with it's bests and with what it's possible V13: Social area—to visit families regularly V15: I believe that we should have a group to attend pregnant people	M2: I would like the Church to visit more families like mine	

Focus Groups

Responses to guided questions in the focus group discussions are reported below. The first tables for the Group 1 and Group 2 focus groups (Tables 13 and 15) show the questions and responses retrieved from the transcript of the recorded of the focus group transcript (not applicable for Group 3). These responses are organized into themes that emerged through qualitative analysis. There are three sources for focus group results: easel pad, transcript, and observations. The easel pad represents what general responses were made to questions posed or topics of discussion and were written down during the

discussion. In the transcript there are comments that emerged from the transcripts of the discussion (quotes are taken from the translator's English translation of the participants' responses). The transcripts provide what questions were asked during the discussion. The observations were recorded by a team member observing the focus group participants during the discussions. Each focus group summary table (Tables 14, 16, 17) contains information from all existing data sources. These responses are organized by themes that emerged in each focus group. Each focus group and its emerging themes are discussed separately in the following sections.

Group 1 Focus Group results

Table 13 includes the responses to questions asked in our first focus group. Participants were first asked, "We want to know what you as parents do to take care of the health of your kids. How do you keep them healthy?" In response to this question, participants responded with answers including vitamins and physical activity.

Participants were then asked "What does the community need to know?" A participant said, "…children need to be loved, they should be treasured, and they should be planned. They should be desired."

Participants were then asked, "What do you think these mothers would also like to know?" One responded, "…it's important for mothers to talk to their children, that many times they get home, very stressed from work, and they just yell and don't have the patience to sit down and talk. So they are not united as a family" as well as, "it's important to put limits, to say no." Another participant said, "teaching them to speak." Another participant said, "You can always remember how your parents dealt with you, and so you should keep in mind that your children are going to remember what you did to

them and how you behave." Another participant responded to this question by saying, "The importance of sharing the values that you have with your children."

Table 13: Group 1 Questions and Responses	
Questions	Responses
We want to know what you as parents do to take care of the health of your kids. How do you keep them healthy? In other words, what does the community know about how to take care of the health of your child?	"Feeding them well, a lot of vitamins. Physical activity"
What else? What does the community need to know?	"...children need to be loved, they should be treasured, and they should be planned. They should be desired"
In the community where I live, there are many young teenagers who are mothers… What do you think those mothers would also like to know?	"…it's important for mothers to talk to their children, that many times they get home, very stressed from work, and they just yell and don't have the patience to sit down and talk. So they are not united as a family" "And she said it's important to put limits, to say no" "Teaching them how to speak" "You can always remember how your parents dealt with you, and so you should keep in mind that your children are going to remember what you did to them and how you behave" "The importance of sharing the values that you have with your children"
Do you have anything else that we should put on the easel pad that you think parents would like to know?	(story of raising child left by friends)

Table 14 shows the summarized responses to questions asked in our first focus group, as well as easel pad writings and observations. The responses from the focus group can be viewed in the categories of different themes. The most discussed theme in Group 1 was family relationships. This theme also has the most written on the easel pad, including that parents should discipline their children but explain why they are correcting them. As noted in the observations, this theme typically arose from personal stories and experiences. The second most discussed theme was nutrition. According to the easel pad,

the main discussion in nutrition was about vitamins. One of the outliers in this focus group was the brief mention of helping children to ensure proper development, as seen on the easel pad. This could be a way the participants chose to generalize the statements they had already made.

Table 14: Group 1 Focus Group Results

Themes	*Easel Pad*	*Transcript*	*Observation*
Nutrition	~Vitamins	~Feeding them well ~A lot of vitamins	~Woman breastfeeding during meeting
Exercise	~Physical activity	~Physical activity	
Spiritual health			
Family relationships	~Make children feel loved, treasured, planned and wanted ~Communication, family unity, instruction (Mothers need to establish more dialogue with the children, not fight with them) ~Be an example--choice on how to lead, father's should look to be an example to the children ~Parents should discipline the child, but explain why they are correcting them	~It's important for mothers to talk to their children ~It's important to put limits, to say no ~You can always remember how your parents dealt with you, and so you should keep in mind that your children are going to remember what you did to them and how you behave ~Sometimes parents don't follow the development of their children, are not really with them, walking together ~...the importance of sharing the values that you have with your children ~...children is for your whole life, you can never give them up... if a child has an issue with learning, you can never give them up ~Children need to be loved, planned, and treasured. They should be desired.	~Baby in room on floor sucking/chewing on show, parents don't stop him ~Parents used personal stories to give examples about spiritual health
Misc.	~Aid in proper development	~They should be planned	~Parents took fussy baby outside but stay by the door to keep listening ~1/3 of parents present didn't say anything, but were engaged and listening

Group 2 Focus Group results

Table 15 contains questions and responses from the focus group. Participants were first asked, "What do the women in your community do to take care of the health of their children?" The participants responded with various answers including healthy eating, hygiene, teaching children how to respect, looking for and finding doctors, playing sports, and learning how to take care of children with special needs. Participants were then asked how women take care of their children, and participants said with education and by "raising children in the church." Participants were then asked what women would like to know more about, and they said "how to keep children from being messy."

When asked what other things mothers would like to know about how to take care of their children, one participant said, "Teaching, helping moms learn to meet the needs of all of their children, if they have more than one." One participant told a story, to which the interviewer responded: "It sounds as though the church is teaching the children here to accept others who are different. So we're saying that perhaps the community needs to learn more about that. How to accept others…special children."

Participants were also asked, " Is there something in your past that you wish you had known when some, those of you who have children, had small children?" A participant told a story, to which the interviewer responded that, "…we want our children to learn how, and they are learning, how to accept people." The translator corrected that "No, they don't know how to accept people with special needs, like special kids." So they want to be taught how.

Participants were then asked, “Do you think mothers in the community know all they need to know about nutrition? What kinds of nutrition information do they need?” One participant said, “Kids don’t know how to be proper…need to know to be healthy and to stop eating lots of snacks and candy because they do it a lot.” Additionally, another participant said, “There’s something that moms here need to learn so they can teach nutrition.”

Participants were then asked a series of questions seeking to find out what else mothers might want to know*: What else could we talk about that mothers might want to know? Are there other things at home or in the community that you worry about, as mothers? Are there things you think that mothers would like to learn about, about making their homes safe for children? Or do you know about other mothers that you wish they knew what you know about how to keep children safe?* One participant said, “interacting with them more.”

Participants were then asked, “When your children get sick, what do you do for them?” Per the translator, a participant said she “gives them medicine and then goes to the doctor.”

Lastly, participants were asked if there was something the church could do to help the community. One participant said, “…having training in the church about how they can go to the streets and how can they talk to the kids that use drugs…how can they reach them and tell them in a way they will understand.”

Table 15: Group 2 Questions and Responses	
Questions	Responses
What do the women in your community do to take care of the health of their children? What do women do to take care of the health of their children?	"Healthy eating... Hygiene" "Look for doctors, find doctors" "Sports"
How do women take care of their children?	"Education" "Raising children in the church"
What do you think women in your church wish they knew more about how to take care of their children? What do you think women would like to know more about?	"How to keep them from being messy"
What other things do you think mothers would like to know about how to take care of their children?	"It sounds as though the church is teaching the children here to accept others who are different. So we're saying that perhaps the community needs to learn more about that. How to accept others…special children" "Teaching, helping moms learn to meet the needs of all of their children, f they have more than one."
Is there something in your past that you whish you had known when some, those of you who have children, small children?	"…we want our children to learn how, and they are learning, how to accept people. No, they don't know how to accept people with special needs, like special kids… Okay so we need to do more of that. Okay. Teaching them how"
Do you think mothers in the community know all they need to know about nutrition? No? What kinds of nutrition information do they need?	"Kids don't know how to be proper… need to know to be healthy and to stop eating lots of snacks and candy because they do it a lot" "There's something that moms here need to learn so they can teach nutrition"
Is there anything else about nutrition or maybe exercise?	"Helping moms understand about safe exercise, or how to keep kids safe when they're exercising is a good idea."
What else could we talk about that mothers might want to know? Are there other things at home or in the community that you worry about, as mothers? Are there things you think that mothers would like to learn about, about making their homes safe for children? Or do you know about other mothers that you wish they knew what you know about how to keep children safe?	"Interacting with them more"
Whenever your child gets sick, whether it's just a cold or a cough, what's the first thing you do to take care of them?	"She gives them medicine and then goes to the doctor"

I just wonder if you know of families in your community who worry about their children and drugs.	"Many parents in this church are already teaching their children about drugs"
Is there something else that you as a church, or you belief your church, could do to help the community? Is there something that we could help with in the future?	"…having training in the church about how they can go to the streets and how can they talk to the kids that use drugs…how can the reach them and tell them in a way they will understand"

Table 16 shows the responses to questions asked in our second focus group, as well as easel pad writings and observations. In this focus group, the most discussed theme was nutrition. This included healthy eating for children as well as educating moms on nutrition. The second most discussed theme was exercise, which included sports and exercise. This category included a personal example of a mother worried about her child's safety on a treadmill. Unlike the first discussion group, the least discussed theme was spiritual health, where the participants cited the need to raise children in the church. There were a significant number of discussions that were considered as miscellaneous as they did not fit into a general theme. These discussions included talking about drug education and prevention, hygiene, and preventing children from being messy and loud. One outlier in this discussion was a participant's concern with social health such as teaching children to be accepting of special children.

Table 16: Group 2 Focus Group Results

Themes	Easel Pad	Transcript	Observation
Nutrition	~Educating moms on nutrition to help kids eat less snack foods and more fruits and vegetables	~Healthy eating ~Kids need to know to be healthy and to stop eating lots of snacks and candy because they do it a lot	~Woman bottle-feeding her 3 month year old baby
Exercise	~Sports ~Exercise/injury education	~Sports ~Keeping children safe when exercising (treadmill)	~Woman asking about treadmill assumed to be a little wealthier based on purse/makeup
Spiritual health	~Raising children in church	~Raising children in the church	

Healthcare	~Find doctors ~When child is sick, give them medicine then go to the doctor if necessary	~Look for doctors, find doctors	
Social Health	~Accepting children with special needs ~Education	~How to accept special children	
Family relationships	~Teaching respect ~Helping moms meet the needs of all their children (especially single moms)	~Helping moms learn to meet the needs of all of their children	
Misc.	~Education ~Hygiene ~Attending meetings on health education ~Drug education ~Prevent messy/loud ~Keep them safe ~Getting equipped to go into community to educate on drugs	~Education ~Hygiene ~How to keep them from being messy and loud ~Training here in the church about how they can go to the streets and how can they talk to the kids that use drugs...how can they reach them and tell them in a way they will understand	~Mothers sometimes talking to each other, but not speaking up to the whole group

Group 3 Focus Group Results

There was not a recording of the third focus group, and therefore no transcript (see *Discussion* chapter). However, group responses were summarized on an easel pad and validated by the group, as was the approach with the other focus groups. Table 17 contains the group responses recorded on the easel pad and validated by the group.

The most discussed category was exercise, which included participants' desire for their children to exercise rather than use the computer and, similarly, to know the importance of exercise. The second most discussed theme was nutrition, where participants discussed nutrition as well as what to eat at different ages. In the category of healthcare, participants discussed the need for regular doctor visits. Under family relationships, they discussed setting limits and discipline. The participants also discussed general health practices such as hygiene, getting enough sleep, preventing sickness and how do protect children from air pollution.

Table 17: Group 3 Focus Group Results	
Themes	Easel Pad
Exercise	~Exercise over computers ~Teaching children the importance of exercise (but what can moms do? Exercise for moms)
Nutrition	~Nutrition ~What to eat at what ages
Healthcare	~Regular doctor visits
Family relationships	~Setting limits/discipline
Misc.	~Hygiene ~Getting enough sleep, regular sleep ~How to prevent sickness ~How to protect children from air pollution ("disease of air")

Summary of themes from all three focus groups

Table 18 shows the themes created from the discussions in the three focus groups. Overall, the most discussed theme was nutrition. However, the discussions within the theme of nutrition varied from group to group. Groups 2 and 3 contained similar ideas of nutrition education and learning nutrition for different age groups.

The second most discussed theme was family relationships, though it is very disproportional with Group 1 having discussed it the most. And again, there were not similar discussions across groups within this category.

The third most discussed theme was exercise, and there was the similar discussion of the importance of exercise between Groups 1 and 3 (though this was probably implied in Group 2 since they chose to talk about exercise).

In the other three categories, spiritual health, social health and healthcare, only two groups had discussion in each theme. There was no overlap between groups in the

miscellaneous category except for Groups 1 and 2 both mentioned education for parents on child health.

Table 18: Summary of Themes			
THEMES	Group 1	Group 2	Group 3
Nutrition	~vitamins ~breastfeeding vs. bottle fed	~healthy eating ~less snack foods ~nutrition education ~bottle vs. breast feed ~more fruits snacks	~nutrition for different age groups
Exercise	~importance of physical activity	~exercise ~exercise safety	~teaching importance of exercise for children and mothers
Spiritual health	~Importance of loving children	~raising children in church	
Healthcare		~having doctor for children	~regular doctor visits
Social Health		~accepting children with special needs	
Family relationships	~Parents being a good example for their children ~Communication: explanation of disciplinary actions and instruction/limits for children ~Children safety	~mothers meeting needs of all children	~setting limits
Misc.	~Aid in child development ~Interest in learning about child health	~Education for mothers/children: drugs and health ~Hygiene	~Preventative medicine: getting enough sleep, preventing sickness, and protecting from air pollution

CHAPTER FOUR

Discussion

This chapter contains a discussion of limitations to this study as well as a discussion of results. The results are drawn from questionnaire data and free responses, as well as focus group discussions. Results are categorized by themes arising from data, responses, and discussion, and are discussed in light of the literature reviewed.

Study Limitations

There were several limitations to this study. One limitation was that some of the interpreters who helped facilitate the focus groups had different levels of experience. All of the interpreters had experience within general health education, but some had little to no experience in a focus group setting. This lack of experience may have contributed to the disorganization of parts of the discussion.

Another limitation was that the participants in this study were from a convenience sample, they were not randomly selected from an existing pool of potential participants. The participants were members of the churches familiar to the research team.

Another limitation to this study was that Group 1 included males. This happened because of the way the focus group was announced to the church congregation by the community partners. It was announced as an event for parents rather than just for mothers.

Additionally, the Group 3 focus group was not recorded because the equipment was not available. Therefore, there is no transcript available for Group 3, and the research team had to rely solely on the other two sources for raw data: the observation notes and

the group-validated responses listed on the large easel pads as the discussion progressed.

Another limitation was that, for many of the participants, this was their first focus group experience. This unfamiliarity with the focus group process may have limited or impacted the depth and scope of responses.

Despite these limitations, it can be stated that the groups were comprised of parents who wanted to know more about or discuss children's health, otherwise they would not have chosen to come. There is also an implication that the participants viewed the church as a safe environment for a place to discuss children's health.

Though the focus group was not recorded for Group 3, the two data sources used to analyze responses for that group were consistent with each other. The fact that these two data sources were consistent with the recorded transcripts within the other two groups may be supportive of the use of only the two data sources for Group 3.

Discussion of Demographics and Survey Responses

From the questionnaire administered to the participants, the research team was able to ascertain certain demographic data, as well as other questions about child health. The demographic items included: gender, marital status, years in the community, and education of the parents. Other health-related questions asked in the survey that were not open-ended included: sources of health, church involvement, satisfaction with health information, it participants have a personal doctor or nurse at a specific location, and child sickness frequency.

Based on survey responses, 69.7% of the participants were married. Some single-parent participants indicated how difficult it was to financially provide for their children and promote child health as a single parent. This finding is consistent with other research

findings indicating that children of married parents typically have better health and social outcomes (Berlin, 2004).

Overall, the three participant groups demonstrated relatively high levels of knowledge about the importance of nutrition, exercise, and social health. It is notable that the average education levels of all three groups were high since the majority of the participants (69.6%) completed a high school education, and some participants completed college level or higher (36.3%). This is consistent with findings in other settings that higher parental education levels are often associated with high levels of health knowledge (Aslam & Kingdon, 2010; DeWalt & Hink, 2007). However, there were some outliers, especially in Group 1. In Group 1, 33.3% of participants stated they only completed up to a 6^{th} grade education or less, with one participant having never attended school. This is an interesting note because Group 1 tended to focus more on social and spiritual aspects of health when asked what the community and parents needed to know about child health in the focus groups, rather than the more physical aspects such as nutrition and exercise that were discussed in the other two groups.

The average number of years the participants had lived in their respective communities was 22.1. This length is significant because it shows that the participants were deeply invested in their communities. Participants also had suggestions for ways to improve the health of their communities through drug education and education for mothers. This average length of residency, combined with the multiple suggestions from participants about ways to promote health in the respective communities, suggests that the participants would have been willing to take part in opportunities to improve them.

Another survey question asked the participants who their source of health information was. The majority of participants (66.7%) said a health professional was their primary source of health information, while almost 40% named other prominent sources including mom, friend, and church leader. Additionally, the majority of participants (72.7%) stated that they were either mostly satisfied or very satisfied with their health information source. This level of satisfaction is notable in light of the finding that almost 40% named their mother, friend, or a church leader as their primary source of information. This finding is consistent with the premise of the Socio-ecological model that relationships with family, friends, and the community are important (Dahlberg & Krug, 2004). Additionally, this finding, combined with the findings that 90.9% of participants stated they attended church and 66.7% stated they were involved in church, shows that these groups view the church as a viable source of health information and support. These results serve as another indicator that equipping churches to promote child health can work, and that it would be advantageous in these communities (Kaplan et al. 2006; DeHaven, et al., 2004).

Another important note from this portion of the findings is that while the majority of participants did list that they had sources of health information (94%), only 51.5% of participants indicated that they had a personal doctor or nurse. It is important to have a personal doctor or nurse as this aids in prevention, basic care, and through a long-lasting relationship, can help manage mental and spiritual needs (Chan, 2013).

Discussion of Child Health Themes

Participants submitted responses to open-ended questions in the questionnaire and responded to questions posed in the focus group discussions. From these responses, there

are some similar overall themes that were noted related to child health.

Child Nutrition

The most prevalent theme in the focus group discussions was nutrition. The three groups talked about topics such as vitamins, breastfeeding, healthy eating, nutrition education, and nutrition for different age groups. In response to the first open-ended question, "What kinds of things do you often do to help keep your children healthy?", participants across the three groups said healthy eating was very important. Participants in some groups offered more specific responses related to nutrition such as feeding infants with breast milk and ensuring that older children eat lots of fruits and veggies.

In response to the second open-ended question, "What is the most important thing you have learned that helps you keep your children healthy?", participants had more to say about nutrition. All three groups said healthy eating. Additionally, a participant from Group 1 said, "feeding them with the right types of food," while another said "reduce the amount of food my child is eating." Two participants from Groups 2 and 3 both said eating regularly and, a participant from Group 3 also said eating fruits and vegetables as well as drinking juices made directly from fruits. In response to the third open ended question, "What do you wish you knew more about that could help you keep your children healthy?", two participants from Group 1 and Group 3 said they wanted to know more about nutrition at different ages. When asked the last open-ended question, "How can your church help mothers keep their children healthy," none of the participants across the three groups said anything about nutrition.

The prominence of nutrition in the focus groups and surveys reflects its importance in child health. The literature consistently states that nutrition is essential in initiating

positive physical, mental and social development (UNICEF, 2012). This prominence of nutrition discussion reflects that the communities share a key understanding of one of the most important child health determinants.

Family Relationships

The second most prevalent theme from the focus group discussions was family relationships. Participants discussed topics such as parents setting a good example for their children, communicating with children, child safety, mothers meeting the needs of all their children, and setting limits. In response to the open-ended question asking what the participants do to keep their children healthy, one participant from Group 1 said "loving them a lot" and a participant from Group 2 said "taking care of him with love." Similarly, a participant from Group 2 also said "talk with kids, hang out together" and a participant from Group 3 said "lots of conversations." When asked the second open-ended question about that the participants have learned to keep their children healthy, they had some responses that fall in the family relationships theme. A participant from Group 1 said, "spend time with him; dedication" and participants from Group 2 said "talking to them the right way, not the wrong way," and " love and affection." Additionally, a participant from Group 1 said, "I take care of them and I try not to be a very strict parent." In response to the third open-ended questions asking what participants wish they knew more about to help keep their children healthy, there was one response related to the theme of family relationships, when a participant from Group 1 said, "talking about limits." The participants did not have any responses related to family relationships in the fourth open-ended question, which asked how the church can help mothers keep their children healthy.

The prevalence of familiar relationships in discussion, or more prominently parental-child relationships, also reflects its importance in child development and health among study participants. Affectionate parental care giving "provides the foundation for healthy brain development and increases the odds for success in school" (Wolff & Ijzendoorn, 1997; Mastergeorge et al., 2013).

Exercise

The third most prevalent theme from the focus group discussions was exercise. The groups talked about the importance of physical activity as well as teaching the importance of exercise to children and mothers, and exercise and exercise safety. In response to the first open-ended question about what the participants do to keep their children healthy, there was one response related to exercise: a participant from Group 1 said physical activities. The second open-ended question asked participants what they have learned that helps them keep their children healthy. Just like the first question, there was one response related to exercise from a participant in Group 3 that said exercises/sports. There were no responses related to exercise to either of the last two open-ended question asking what participants wished they knew more about to help keep their children healthy and how the church can help mothers keep their children healthy.

This study finding is consistent with the literature in that exercise has been proven to have positive effects on physical and mental health for children and leads to overall better health outcomes (Penedo & Dahn, 2005). This is an idea that the participants appeared to be familiar with as they displayed their understanding that exercise is important, as well as their desire to increase their children's physical activity.

Spiritual Health

Another prominent theme that arose in the focus group discussions was spiritual health. The participant groups talked about the importance of loving children and raising them in the church. There is some potential overlap between the category of spiritual health and family relationships because loving children can also be categorized under family relationships. However, the spiritual aspects of these loving relationships were apparent.

In response to the first open-ended question asking what kinds of things participants do to keep their children healthy, there were many responses related to spiritual health. A participant in Group 1 said, "I bless my kids, ask them to pray in the mornings." Two participants in Group 2 said "Praying and asking for help to our Lord" and spiritual education. The second open-ended question asked participants what is the most important thing they have learned to help them take care of their children. To this question, a participant from Group 1 said, "Love them, treat them like treasures that the Lord trusted us to take care of." Participants from Group 2 also said spiritual health as well as "love and affection." Participants did not have any responses related to the theme of spiritual health when answering the question about what they wish they knew more about to keep their children healthy. In response to the fourth open-ended question asking how the church can help with children's health, a participant from Group 1 said "the Church already helps a lot ministering us the Word of God; it blesses us a lot."

These findings are consistent with findings in other studies (Wallace & Tyrone, 1998) that positive relationships between religious attitudes and practices and the health behavior of children. It is apparent that, within the population that participated in this

study, spiritual health is viewed as a relevant and important determinant of child health, and one that should be nourished.

Social Health

Another theme that emerged from the focus group discussions was social health. For example, one participant from Group 2 discussed children accepting other children with special needs. The first open-ended question form the questionnaire asked participants what kinds of things they do to keep their children healthy. Under the category of social health, a participant from Group 3 said entertainment. However, there were not any responses related to social health for the second, third, and fourth open-ended questions. The participants also told stories of children who were without homes or families, and of members of the community that saw children in need and took them into their own homes. Their stories not only conveyed their understanding of social factors that contribute to health, but their desire to provide homes for these children was also inspiring.

Based on the socio-economic model, social health is a determinant of a child's overall health. On a more specific level, research has shown that social factors can affect a child's immune system (Keating, 1999). On a larger scale, research has also shown that children who are socially disadvantaged have poorer heath (Bauman, Silver, & Stein, 2006). Therefore social health can have positive or negative effects, but the participants appear to be aware of its importance in child health.

Other health topics

There were many responses in the open-ended questions that did not appear again in the focus group discussions. These topics included hygiene, healthcare, safety and

sleep. While not all of these subjects were discussed in the focus groups, in each of these categories, at least two or even all three groups wrote in related responses under the survey question, "What kinds of things do you often do to help keep your children healthy?" Health advice is a subject that also appeared in response to the open-ended question, "How can your church help mothers keep their children healthy?" for all three groups, but was not discussed in any of the focus groups.

Topics Not Discussed

It is interesting to note the components of health that were not discussed by participants, such as vaccinations, access to care, and common illnesses. Instead, the participants chose to focus on preventive care and healthy life behaviors rather than a discussion of disease and treatment. From the demographics, participants appeared to be content with the health care they were receiving. One reason this is significant is because of the Family Health Program. The Family Health Program utilizes Community Health Workers to encourage preventive medicine and behavior, and preventive health behaviors were the types of health most prevalently discussed by the participants (Reis, 2013. This could lead to the idea that participants are also satisfied with the Family Health Program and its focus on preventive care.

CHAPTER FIVE

Conclusion and Recommendations

Despite the progress that has been made in the field of child health, there is still room for improvement. Brazil is no exception and its government and communities are continuing to work towards improving child health.

In this study, the child health perspectives of three parent groups in Brazilian urban neighborhoods were examined. Their responses to the survey and their points of discussion in the focus groups call on their knowledge of health and their desires to create the best health for their children. An encouraging discovery from this research was that the three communities studied have progressed past some of the basic guidelines created by the WHO that are still being strived for in other parts of the world. The participants were eager to share what they knew about child health, and comfortable with opening up about what they did not know. The participants also showed health literacy through their understanding of the tenets that need to be met to obtain the best health for their children, and displayed health knowledge.

The primary areas of health interests identified in this study serve as sources for recommendations for addressing child health in the priority population. Church-based health programs designed to equip parents with information and skills needed to promote child health may be an effective approach in this population.

One conclusion from the research was how the community valued the presence of the church and the church leaders. The participants discussed what all their churches were doing to help the children socially and spiritually, and that they were very grateful for the

help. Additionally, many of the participants listed their church leader as their primary source for health information. This shows that the participants not only trust the influence of the church for what it is teaching them spiritually and socially, but also for the health advice they are given by church leaders. Therefore, it is not unreasonable to believe the communities could trust the church as a source of health information as well. This is especially true since many of the participants had suggestions for what the church could do to improve the health of their children. The literature refers to churches that are integrated in the community as a source of health promotion that is often ignored (Wallace & Tyrone, 1998). In this study, all the participants were eager to learn more to improve the health of their children, and therefore all three communities would be receptive to health education through the church. One way health information could be administered is through a church-based health program. This would create a self-sustainable form of health education where members within the church are educating other members of the church, as well as reaching out into the community.

Based on study findings, an important health issue that should be addressed through church-based health promotion programs is nutrition. The participants stated that they know nutrition is very important for children, which is an excellent sign of health literacy and health knowledge since the participants pointed to nutrition as a key determinant for child health. However, participants also stated that nutrition was something they would like to know more about in the future, such as what to feed children at different ages and how to teach children healthy eating . Therefore, since this was the most discussed topic and point of inquiry, it is recommended that nutrition serve as a topic for education in future trips to these communities.

The social and spiritual aspects of church-based health promotion programs are also important factors. It was evident that study participants understood the importance of social and spiritual health. The participants not only mentioned, but also discussed in detail, the need for a child to have a supportive and loving family as a determinant of health. These beliefs about the importance of various relationships continue to testify that there is more to child health than nutrition and going to the doctor, which is supported by the socio-ecological model. Therefore another recommendation would be to include education for improving family relationships in the future. The participants discussed the importance of communication between parents and children, which is something that could be worked on in the church-based health education programs.

One final point of discussion is the difference between actual and perceived needs, where the actual needs of a community are what the data says the community needs, and the perceived needs of a community are what the community members believe to be the central needs. As previously discussed, the participants focused on preventive care in the discussions, rather than health treatment and diseases. While the participants believe these topics to be the most pertinent to their communities, perhaps they are the perceived needs rather than the actual needs. To eliminate this dilemma, further research should be done to look at the actual needs of the communities based on data, and to compare these findings to the perceived needs of the participants. These finding would allow future community health workers to better meet the needs of the communities in a way that will more efficiently improve the health of the community.

Child health is important as it influences children's future outcomes. While child health has vastly improved in many parts of the world, including Brazil, there is always

room for improvement. This improvement can be brought about through the patient practice of listening to the needs of a community, and responding to those needs. Church health promotion programs may be a viable avenue through which child health can be effectively promoted.

APPENDICES

APPENDIX A

Brazilian Women's Perspectives about Keeping their Children Healthy

Informed Consent Form for Group Interviews

Welcome and introductions
Thank you for joining us today! We know that you are very busy.
We have come here to learn about how you take care of the health of your children.
What you teach us today will be used to find out if we can partner with you in the future to help you keep your families healthy.

Who are we and why are we here? We are health educators from Baylor University, which is in Waco, Texas, of the United States of America. We care about the health of your family. We want to learn about how you take care of the health of your children. We want to partner with the church that is hosting this event to find ways to help you take care of the health of your children. If you have questions about this study, please contact Dr. Eva Doyle, Baylor University, One Bear Place #97313, Waco, TX, 76798-7313, PH: (254) 710-4023, E-mail: Eva_Doyle@baylor.edu. For more information about your rights as a participant, please contact Dr. David W. Schlueter, Ph.D., Chair Baylor IRB, Baylor University, One Bear Place #97368 Waco, TX 76798-7368. Dr. Schlueter may also be reached at (254) 710-6920 or (254) 710-3708.

What are we asking you to do? We are asking you to participate in a group interview for mothers that will take about an hour and a half to complete. We will ask this group of women questions about how they take care of the health of their children and what may be needed to make that task easier. The interviewer will write the group's answers on a large easel pad for the group to see and discuss.

What will we do with your answers? We will use all of the information to think of ways to help mothers take care of the health of their children. We will report this information back to the church that is hosting this event and other health professionals who may be interested in partnering with us to promote family health. We will also share this information with health professionals in other parts of the world who are interested in the health of families around the world. We will not use your name in these reports!

We will record the group discussion. We plan to record the group interviews, but these recordings will only be used by our interview team to make sure that we report the group's answers correctly. No one else will hear these recordings. We will keep these recordings locked away in a safe place and will destroy them when we have finished our work. We will protect this information to the extent that the law allows.

There are some small risks. The women who participate in this group may become bored or feel uncomfortable about some questions. But, you can choose to not answer a question or can just say "I do not know." The interviewer will just move on to the next question. You may also leave the group interview at any time. Nothing bad will happen if you do this.

You can choose! You do not have to participate. Anyone who does not wish to participate is free to leave now. If you decide to stay and participate, we need for you to sign this form to give us permission to use the information you provide for us. If you agree to participate and allow us to use the information in the way we have described, please print your name and today's date in the box below. Then sign your name where it says "Sign here." Give this signed form to someone on our team before we begin. We will give to you a second copy of this form that you can take home with you.

You must be at least 18 years old. By signing this form, you are saying that you are at least 18 years old.

Print and sign name
Print **name here:**
Sign **here:**
Print **today's date:**

APPENDIX B

Information Form for Group Interview
(Written Questionnaire)

Please do not write your name on this form. Please answer questions on the front and back. You may skip questions you do not wish to answer. Please give the completed form to a member of our team before we begin our group discussion. You do not have to complete this form to participate in the discussion group.

1-How old are you? _____*years*

2-What is your marital status? Please check one below.
___*I am single and have never been married. (If never married, please skip to question 4.)*
___*I am currently married.*
___*I married but am now divorced or separated.*
___*I married but am now a widow.*

3-For how many years have you been married (or how many years *were* you married)? _____*years*

4-Do you have children? *(check one)* ___*yes* ___*no (If "no," please skip to question 8)*

5-How many children do you have? ____ *children*

6-How many of your children live with you? ____*children live with me*

7-How many children do you have in each of the following age categories.
(Leave categories blank that do not fit the ages of your children.)

Age category	Write the number of children who fit in each age category
Younger than 1 year old	
1-2 years old	
3-4 years old	
5-9 years old	
10-14 years old	
15-19 years old	
20-24 years old	
25-29 years old	
Older than 30 years old	

8-Are you a grandmother? *(check one)* ___*yes* ___*no (If "no," please skip to question 11).*

9-How many grandchildren do you have? _____*grandchildren*

10-Do you live with an adult child and his/her children? *(check one)* ___*yes* ___*no*

11-For how long have you lived in this city? ____*years lived in this city*

12-Who do you go to for advice about how to take care of the health of your children? *(Please check all that apply.)*

___*no one.*
___*my mother.*
___*my mother-in-law*
___*a friend*
___*doctor or health professional*
___*other person (please write it in):*_____

13- Of all of the people who give you advice about how to take care of the health of your children, whose advice helps you the most?

___*No one gives me advice.*
___*The person whose advice helps me the most is (write in)*_____

14- How many times per year does your child get sick?

_____*0* _____*1-3* ____*4-6* ____*7 or more*

15- Do you have a personal doctor or nurse? *(check one)* ___*yes* ___*no*

16- Do you have a medical home? *(check one)* ___*yes* ___*no*

17- Do you attend Church services regularly? *(check one)* ___*yes* ___*no*

Are you involved with Church programs? *(check one)* ___*yes* ___*no*

Please write some brief ideas or thoughts beneath each question below.

14-What kinds of things do you often do to help keep your children healthy?

15-What is the most important thing you have learned that helps you keep your children healthy?

16-What do you wish you knew more about that could help you keep your children healthy?

_____

17-How can your church help mothers keep their children healthy?

_____

APPENDIX C

Group Interview Guide
(Focus Group Protocol and Questions)

This document is designed to guide the research team to implement the guided group interview (focus group). It contains instructions for how to welcome participants, overview the study, obtain information consent, implement/obtain completed written questionnaires, and implement the group interview.

1-Welcome and introductions *(~5 minutes)*

Use the following as a general guide:

a. *Thank you for joining us today! We know that you are very busy.*
b. *We are here today because we are interested in the health of your families. We want to learn 3 things from you today. We want to know:*
    i. *What you do to keep your children healthy.*
    ii. *What you wish you knew more about in order to keep your children healthy.*
    iii. *How the church may be able to help with this in the future.*
c. *We are going to be here for about 1½ hours today. We have 2 sets of questions we plan to ask. We'll have a short break between these two sets. If you get tired or need to leave before we finish today, it will be okay.*
d. *But, before we begin the discussion, we need to cover 2 pieces of paper that we hope you have already received. They are a "consent form" that gives us permission to ask you questions and use the information you provide and a short questionnaire. (Make sure everyone has these. Distribute copies to those who don't.)*

2- Informed consent information *(~5-10 minutes)*

a. Cover the information on the consent form.
b. Answer questions that arise.
c. Explain that those who wish to leave at this time without participating may do so. Emphasize that no penalties of any kind will occur if they choose to leave. Thank those who choose to leave for coming and allow them time to exit.
d. Ask for signed consent forms from those who choose to stay and place them in an envelope that is separate from the completed questionnaires.

3-Written questionnaire *(~5 minutes)*

a. Make sure everyone received a questionnaire. (If someone did not receive one in previous weeks or forgot to bring it, explain that they can turn in the questionnaire to a designated church volunteer within the coming week.)
b. Explain its purpose and remind respondents to not put their names on them.
c. Ask for already-completed questionnaires and place them in a separate envelope from that holding the signed consent forms.

4-Implement the guided group interview [focus group] *(~60 minutes total)*

a. Explain the purpose of the group interview.

b. Establish group rules using the following statements written on a visible sign on the wall.
    1. **Say what you think! (**Don't be afraid to tell us what you really think. We respect your opinions.)
    2. **Let others talk, too!** (We need to hear from *all* who wish to speak. Help us give others a chance.)
    3. **One speaker at a time. (**It will be easier to hear and record answers and will be less confusing.)
    4. **Respect different opinions.** (It is okay for people to disagree. We can record and respect all opinions.)
    5. **Stay on the subject!** (*Stay on track!* We may need to explore some ideas as we go along. But we will also need to try to stay on the subject presented in the question. If we get off track, we may need to write that new subject down and come back to it later if there is time.)
c. Remind participants that the session will be audio taped so that the team can later listen for reporting accuracy. (Remind them how confidentiality will be maintained, as described in the consent form.)
d. Explain the data collection protocol (English-Portuguese interpretations, key words on easel pads with group consensus validated, observers taking notes and helping facilitators stay on track)
e. Begin the first half of the questions (see questions on next page.)
f. Provide a 15-minute break at ~20 minutes into the session. (Light refreshments will be available.)
g. Complete the 2nd half of the questions (~20 minutes).
h. Summarize group responses.
i. Thank the group and remind them that results will be available to them through the church.

APPENDIX D

Group Interview Questions

The following questions will be used to guide a group discussion. A 15-minute break will occur halfway through the discussion. The total event is expected to last for approximately 1½ hours.

Health and Quality of Life

1. How healthy are your children?
    a. Have any of them been unhealthy or sick during the past year? (With what health problems?)
2. When your children are *unhealthy*, in what ways does it impact their life?
    a. In what ways does it impact your family?
3. When your children are healthy, how does being healthy impact their lives and your family?

Health Behavior

1. Is there anything your *children* do (or can do) to make themselves:
    a. *more* healthy?
    b. *less* healthy?
2. Is there anything that *you do*, as their mother, to help them be *more* healthy?
3. Do you think there is anything that you *could* do – or *could do more of* – to help your children be more healthy? If so, what would that be?
4. What do you usually do when your child is sick?
    a. Are there medicines or home remedies that you often buy and use at home?
    b. Have you ever taken a child to a doctor or clinic or emergency room? If so, what was the reason? Was your child helped?

Predisposing Factors

1. How do you know when your child's sickness is something that:
    a. Needs a doctor's attention?
    b. You can treat at home (without taking him/her to see a doctor)?
2. What does a mother *need to know* to be able to care for the health of her children?
3. What kinds of things *do you know* about that help you care for the health of your children?
    a. Probes: first aid, nutrition etc.
4. What do you *wish you knew* more about to be better able to take care of your children's health?
5. When it comes to the health of your children, what do you *worry about* most?
6. Is there anything that *frustrates* you when trying to take care of the health of your children? (If so, what is it?)
7. What *causes you to feel less worried* about the health of your children? (Are there things you are able to do that help you worry less?)

Enabling Factors

1. What *skills* have you learned that help you take care of the health of your children? (Probes: can choose healthy foods, trained in first aid, know how to take and read a temperature…)
2. What *skills* do you *wish* you could learn that could help you take better care of the health of your children? (What do you wish you knew more about – could do better?)
3. What *resources* are available to you to help care for the health of your child? (Probes: money, clinic, healthy foods, places for them to play/exercise)
4. What *resources* do you *wish* were available?

[15-minute break – light refreshments]

Reinforcing Factors (the influence of others)

1. *Who taught you* about how to take care of the health of your children?(Probes: mother, grandmother, friend, teacher, health professional)
    a. What *kinds of things* did they teach you?
    b. What was the *most important* thing you learned from them?
2. Who do you go to *for advice* about how to care for the health of your children?
    a. What *kinds of advice* do you get from them?
3. How does the way you treat your children's health *compare to how your friends do it*?
4. Do you and your *spouse* usually agree on how to care for your child's health or how it should be dealt with (treated, level of sickness, etc.)
    a. On *what things* do you usually agree/disagree?
5. Does anyone in *your church* help you know how to take care of the health of your children? If so, in what way?

Environmental Factors

1. In what ways does the Brazilian healthcare system (SUS) help you care for the health of your children?
2. In what ways could the Brazilian healthcare system (SUS) be improved?
    a. Have you ever denied your children health care because of cost?
3. Do you think your *neighborhood* is a healthy place for your children to live?
    a. What things are in your *neighborhood* that can help keep your children *healthy?*
    b. What things are in your *neighborhood* that can cause your children to be *unhealthy* (or unsafe)?

Ask previous questions for:

4. your home
5. school where your children study
6. your church

Summary

1. Is there anything we have not discussed today about caring for your children's health that you wish we knew?
2. What do you think is the most important message from your group about taking care of the health of your children?
3. What kinds of things do you think this church should think about doing in the future to help mothers take care of the health of their children?

REVISED Group Interview Questions

4. What do you do that helps you to keep your children healthy?
5. What do you wish you knew more about that you think could help you keep your children healthy?
6. What could the church potentially do in the future to help you keep your children healthy?

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